YACHTING

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"Nga Toa," scratch boat, was first to finish by virtue of being hard driven

A Christmas Race

It Was a Wet and Lively Run from Auckland to Tauranga

By R. B. GOODWIN

THE Christmas cruise had been planned weeks ahead, and it was our intention to go north to the waters of the flying fish, the mako, and the swordfish. Then persistent requests from other competitors had induced me to enter the race to Tauranga, a change of program which was received but coldly by the crew. In vain, I tried to ease a guilty conscience by romancing blithely of southwest winds that would waft us gently over calm seas, and told how we would cross the finishing line and straightway leave for the promised north. My cheery stories were heard with cold indifference, and I knew in my heart that it would not be so. Not that 140 miles is any great distance, but sometimes it can be darned unpleasant.

It was 4:30 p.m., December 24th, 1934, and a fresh easterly wind was driving white-capped ripples across the boat harbor. The yachts strained uneasily at their moorings. While an intermittent fire of abuse was leveled at me, stores had been stowed and everything below packed tight in anticipation of rough water. The last job was to lash the dinghy on deck, and when that was done we retired to the cabin for a spell. *Whooo-eeee-oooo* went a squall through *Tawhiri's* rigging. Four pairs of unfriendly eyes were turned on me, and Syd said with fervent deliberation, "You b---y bonehead." That broke the spell, and all hands joined in a burst of hilarious mirth. *Whooo-eeee-oooo.* "Listen to that; sounds like a lament for all the lost dinners that are going to be." For a month the wind had persisted in the eastern semicircle, freshening and fading, freshening and fading, but never working up to that final blow which the prophets had been long predicting. But a strong onshore wind never makes for comfortable sailing.

The race was to start at 7:30 p.m., and at 6:30 we let go our mooring to beat down to the line. While we are getting that far I shall give you *Tawhiri's* dimensions — l.o.a., 39 feet; l.w.l., 27 feet; beam, 9 feet 6 inches; draft, 5 feet; and she carries 645 square feet in a Bermudian mainsail and single headsail set from the stemhead. There is also a small jib topsail which does great work on the wind, in defiance of the horrific epithets it has to withstand. The rig is too small for light weather, and in spite of the grumbling our crew was really pleased, for a strong head wind and lively sea gave us the best chance of a win.

Under main and jib, our lee rail was well buried, and as the main sheet was showing signs of wear we rove a new one. Most of the running rigging had been renewed. Just before time the wind began to ease off, so the jib topsail was run

up and we crossed at gunfire to a perfect start. The first six miles gave a beat dead to windward against a flood tide, and we were sailing away from everything except *Nga Toa*, our largest rival. She was scratch boat, and after a mile and a half had been covered, she passed us to windward, to creep slowly away into the night. In the Motuihi Passage the wind almost died out for half an hour, and *Waione* passed, going well in the light air. But rain clouds were banking to windward, and very soon it was our turn again. Swells were rolling in from the Hauraki Gulf, and *Tawhiri* ambled along with a quiet *swush, swush,* until suddenly sheets creaked and strained, the rail went under, and we were off. There was a song of wind, and the soft *swush* changed to a virile *swish* and a zip of spray as she slammed her way through waves that she was in too much of a hurry to go over. Then the ship was showing her true form, and very soon *Waione* disappeared off our lee quarter, leaving us alone in the hurrying night.

The wind was freshening, and spray swept across us as we ploughed along on the starboard tack, with flaming phosphorous all about. Our course should have cleared reefs outside the Noisies, but a sudden commotion of broken water

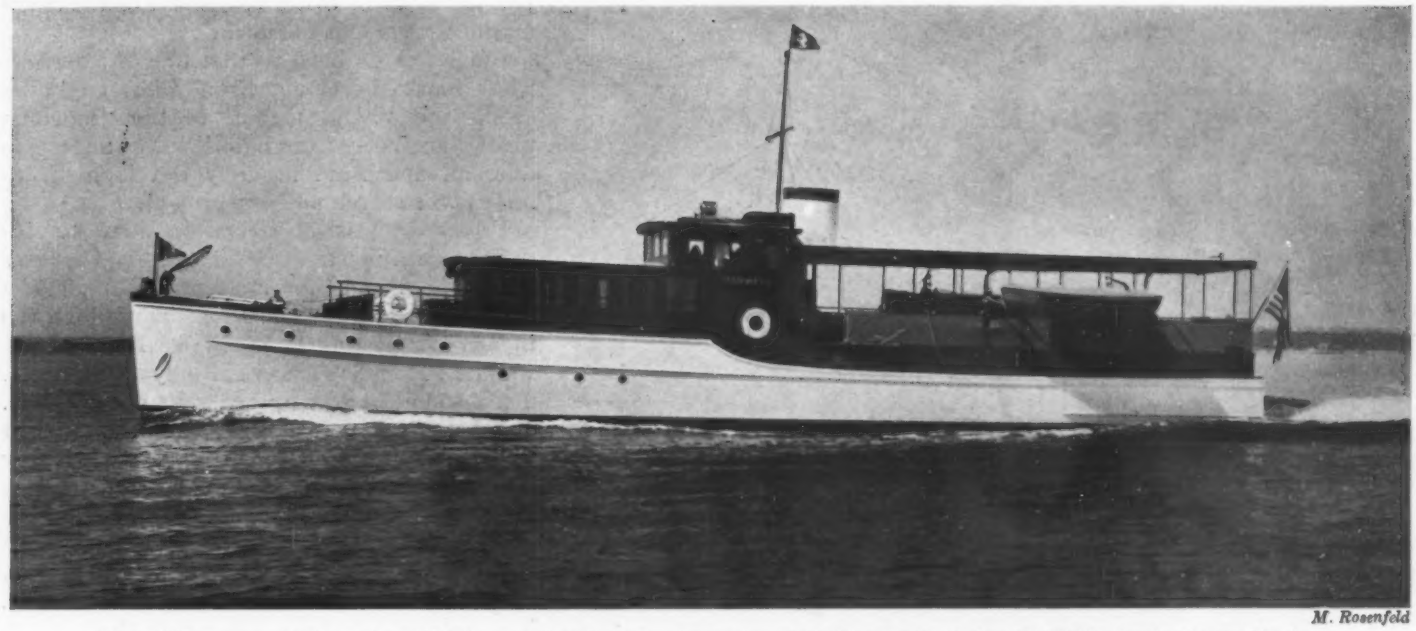
"Tawhiri," but 39 feet in length over all, could carry more sail when the wind was light. Though she found the going stiff she won the race on corrected time

Below, the beach under Mount Maunganui, Tauranga, where the southern ocean rolls in on a shelving shore. Mount Maunganui rises steeply to a height of eight hundred feet

close to leeward made us go about in a hurry, and we stood across for at least a mile before swinging again. As someone remarked, "Courses are all damned fine on paper, but a rock through the bottom of your ship is a *very* material thing."

About 11:00 p.m. a narrow strip of moonlight passing along the horizon showed us *Nga Toa* out ahead, her tall rig heeled down at a steep angle against the sky. Light rain showers passed in quick succession, each one bringing a whistling squall that buried two feet of the deck at times, but sent us leaping on our way. Ted was at the tiller with Ben in the cockpit to keep him company. My bunk was right out in the lee bilge where weight was most detrimental, so I had curled up in my oilskins on the cabin floor. Down below it was remarkably quiet, the most prominent sound the sharply musical gurgle of water racing along our deck. Now and again would come a sudden shock and quiver from end to end as we met an awkward sea. Solid dark filled the cabin and, running blindly, our world had gone eccentric on its axis. It swayed and rolled and fell shuddering away to unknown depths, only to surge upward again in drunken instability. My brain was growing sluggish so that it

(*Continued on page 91*)



M. Rosenfeld

"Harwell," an example of a modern Diesel-powered cruiser of moderate size. Built this year for Arthur W. Hobler, by the Chance Marine Construction Co., "Harwell" is 79 feet in length and is powered by a pair of Buda Diesels that give a cruising speed of 15 m.p.h.

Diesel Engine Progress for the Small Yacht

By

DWIGHT S. SIMPSON

THE first Diesel engine I ever saw was a pumping machine of 75 hp. which weighed about nine tons. Many years later, in 1919 to be exact, came my first personal experience with the "small" marine Diesel; a very advanced type it was for its day, made by the Wolverine Motor Works, and alleged to develop 95 hp. at 350 r.p.m. It weighed over five tons (about 112 lbs. per hp.), was eleven feet long, and cost $80 per hp. Incidentally, it is still running — and at nearer to 400 than 350 r.p.m.

Two years later *Faith*, the first of the small Diesel yachts, was designed by John Alden for I. E. Raymond. She had a 4-cylinder, 60 hp. engine, turning at 350 r.p.m. It weighed 117 lbs. per hp. That engine, a Mianus, is also still running.

In 1925 I installed a 6-cylinder engine of 75 hp. at 76 lbs. and $66 per hp. It was 10 feet 6 inches long and rose about 6 feet above the shaft. The following year I used another make, giving 100 hp. at 600 r.p.m. — 77 lbs., $100 per hp., and 11 feet 6 inches long.

And here we draw a line of asterisks —

* * * * * * * * * * * *

Two years passed. In 1928 that 100 hp. engine was replaced by another of the same make giving 200 hp. at 700 r.p.m. Not only had the weight dropped to 40 lbs. per hp., but the price was down to $58 and the fore and aft space required was three feet less. Today, the makers of that same engine can put into the space of the original 100 hp. job 500 hp. at 1000 r.p.m. on 26 lbs., and costing but $32 per hp., with an additional saving in the installation expense.

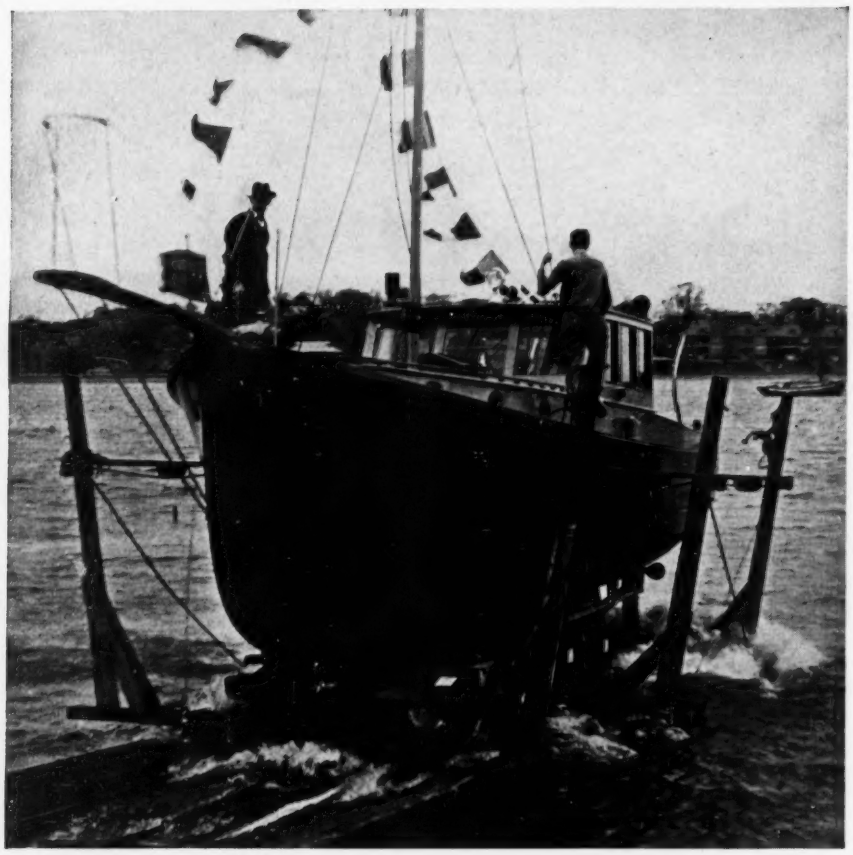
By 1930 the original makers of the 75 hp. machine which I have previously mentioned produced a 1000 r.p.m., 60 hp. engine at 42 lbs., and $50 per horse, and with a saving of three feet in length. But more was yet to come; last summer they delivered that original 75 hp. on 27 lbs., at $40 per hp., and in a space only 6 feet 2 inches long. They can now pack into the exact space of that earlier mill 275 hp. at 1100 r.p.m.; 26 lbs. at only $25 per hp.

Engine room of "Harwell," showing the neat and compact installation of her two 6-cylinder 152 hp. Buda Diesel motors with 2.44:1 reduction gear

So great has been the development that one perfectly reliable small engine is offered at 18½ lbs., and another is advertised at 15 lbs. per hp.

Not so many years ago a Diesel of as little as 50 hp. would have been eyed with suspicion. Metals then used would not stand the heat in the small units required, and the methods of handling the minute quantity of fuel needed for each "explosion" (one teaspoonful will furnish about 120 explosions) were crude and unreliable. Today, 2-cylinder engines of five or six hp. are available, and at least three British manufacturers offer engines as low as three hp. for marine purposes.

If we add to the foregoing the statement that the latest engines are more reliable than the early ones, I have given



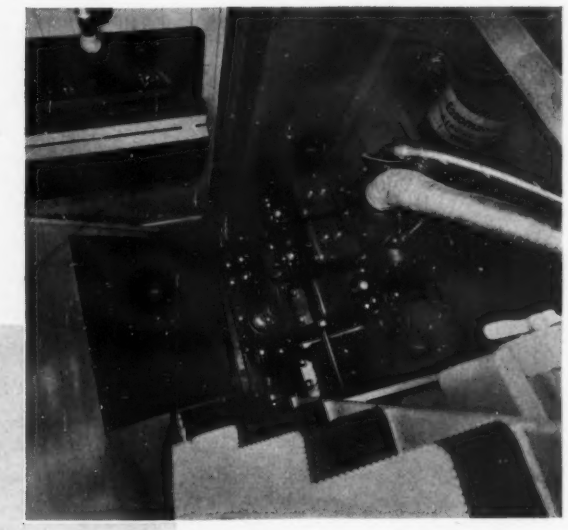
Indicative of the use of Diesels in boats of smaller size is "Griguet," a 38-footer designed by John G. Alden for Henry Warren and powered with two 6-cylinder Cummins motors developing 55 hp. each at 1000 revolutions and weighing only 1500 lbs. each. Plans of this boat appeared in the November issue

you the story of the development of the small marine Diesel in a nutshell.

But let us go back to that line of asterisks. They mark the change from what might be called the "hand made" to the "machine made" engine — from individual to mass production, and from leisurely development to intensive research and experiment.

Prior to 1927 or 1928 each engine was an individual job. When its maker accepted the order he may have had a few castings on hand but he had to build the engine. Its serial number was important. The parts for engine Number 221 would fit Numbers 220 or 222 only by a miracle. They would fit 221 by generous use of a file. I am reminded of an interesting illustration as I write these words. In an attempt to check my own meager data on these older engines, one manufacturer wrote that he could not give me the weight, r.p.m., or approximate cost of an early job unless I gave him the serial number.

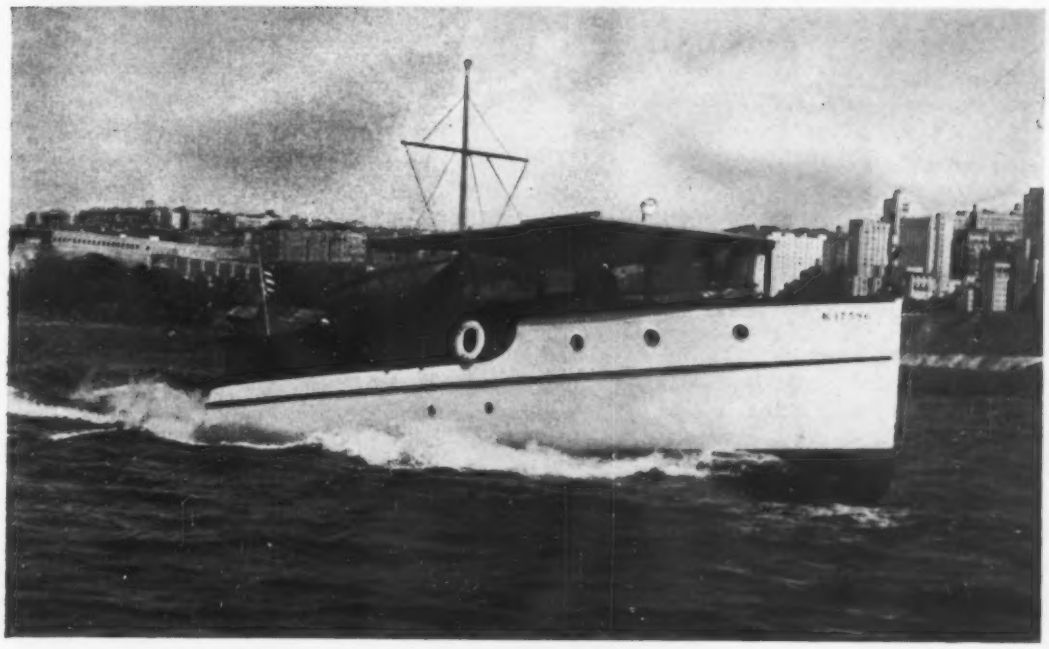
The reason for this condition was simple. The volume of business did not warrant extensive tooling up. While it was known that heat treatments and alloys might be desirable, the hand-made engines cost enough as it was, so cast iron and plenty of it was the mainstay. It cost no more to make an engine a little different and there was obviously plenty of



Below. As auxiliary power for sailing yachts small Diesels are fast finding a place. Schooner "Escape," designed by C. A. Nedwidek for Commodore F. H. Walsh, has her 2-cylinder Fairbanks-Morse motor, with reduction gear, neatly housed in an enclosed engine room. Her plans were also published in November

room for improvement, so each engine was really little more than an attempt to improve upon a previous experiment. Changes came so rapidly that a standardized engine would be out of date before it could be sold.

Then the automotive industry began to realize that the economic and other characteristics of the Diesel might prove desirable in trucks, buses and portable machinery in general. The almost unlimited potentialities in this field spurred the manufacturers. Money was spent in research, experiment and development. Heat treatments



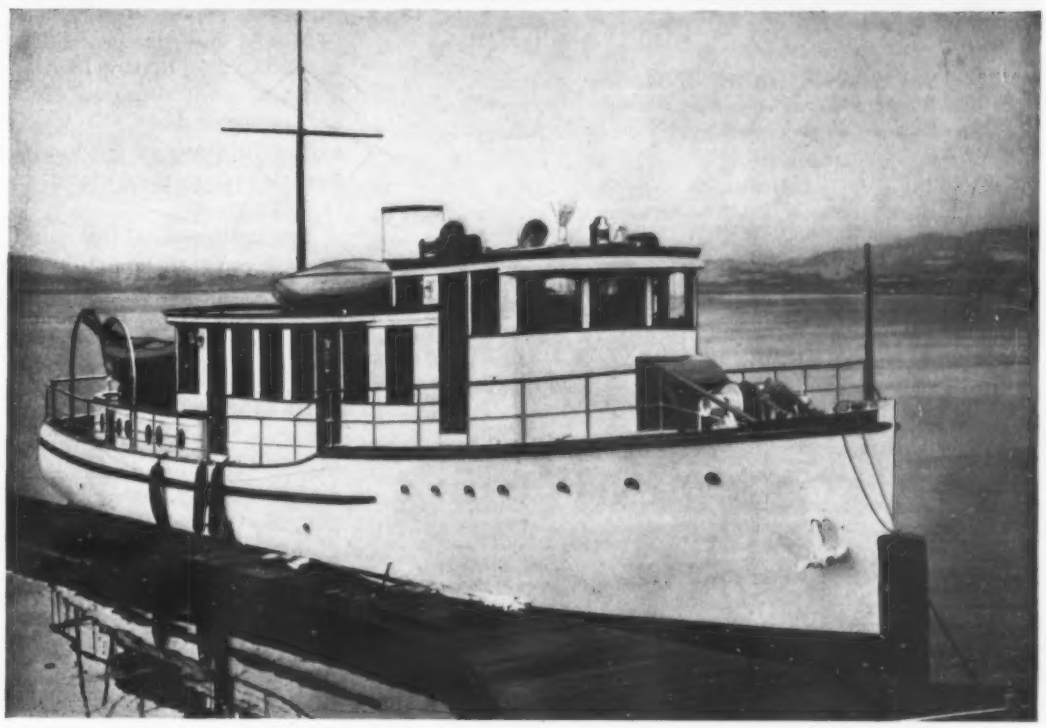
Left. "Ebeitus," a 40-footer owned by E. L. Goodwin, recently powered with a 100 hp. Superior Diesel turning 1400 r.p.m. through 2:1 reduction gear, averaged close to 12 statute miles per hour on a recent cruise from New York to Maine and burned 4⅔ gallons of fuel per hour

Below. Two of the latest 120 hp. Winton-Diesels power Ed Wynne's fast cruiser "Chief." Weighing but about 35 lbs. per hp., the over all length is but 7½ feet

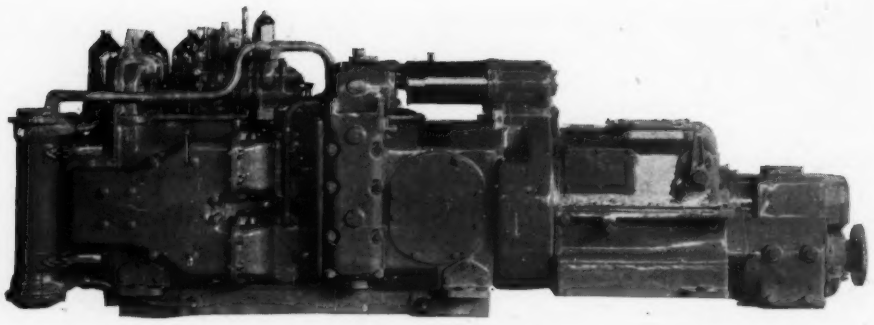
and alloys were adopted and new methods devised. Production engineers were added to the staff. High pressure air injection systems were complicated and cumbersome, so solid injection systems were improved. Electric starters able to turn over the smaller engines were developed. The man in the truck cab could not be expected to look under its hood very often, so simplification in adjustments and control was sought. Mechanical vagaries were overcome.

All this tended to make Diesel engines sufficiently satisfactory to warrant standardization and extensive tooling for manufacture. Heavy cast iron cylinders gave way to linered unit blocks, the latter, in some cases, of light welded metals. Weights came down, due to engineering development, and prices dropped with the increase in production. Paralleling the development of the gasoline engine, automotive requirements made the Diesel really practical for the small boat.

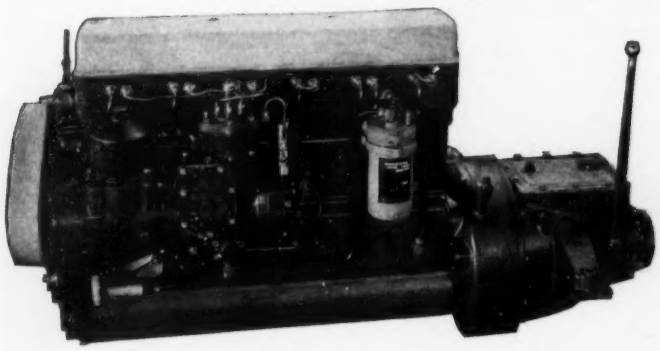
It is not necessary to go into the details of the many pumps, injectors and other mechanical devices that have been tried and rejected or improved. Most of us do not care how our



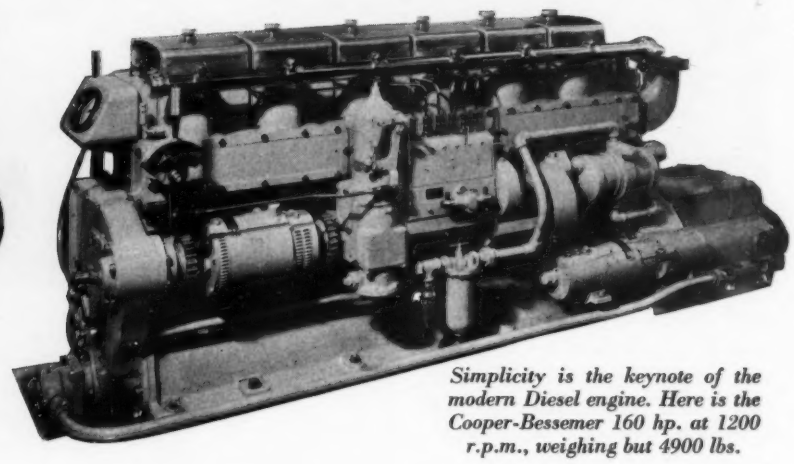
Right. A new West Coast cruiser of rugged design for work in Puget Sound and Alaskan waters is the 68-foot "Carmelita." Powered with two 100 hp. Cooper Bessemer 8-cylinder Diesels, she has a wide cruising radius



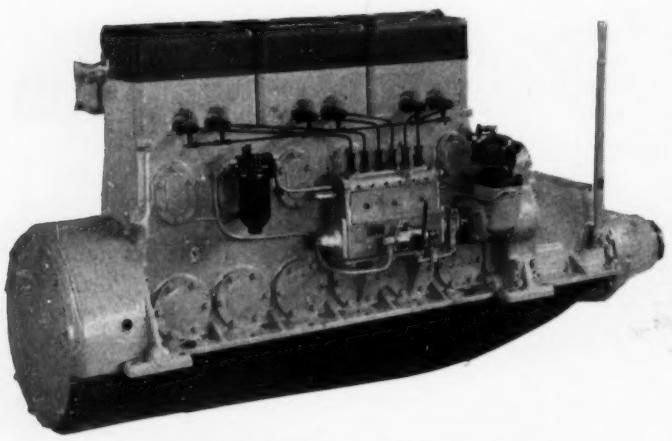
The Sterling Crankless Diesel, whose limited height allows it to be set low in the boat, develops 140 hp. at 1800 r.p.m. with either 2:1 or 3:1 reduction gear



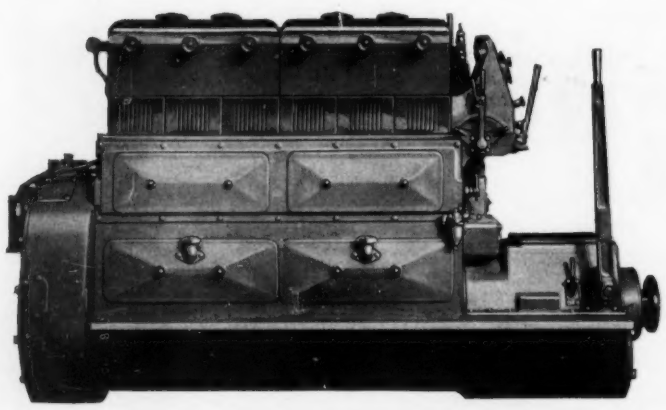
The new AMR-6 Cummins Diesel, showing low-pressure fuel pump and oil filter. At 2200 r.p.m. it develops 85 hp. Two of these are installed in the 38-footer "Griguet." The overall length is 58½ inches



Simplicity is the keynote of the modern Diesel engine. Here is the Cooper-Bessemer 160 hp. at 1200 r.p.m., weighing but 4900 lbs.



The Superior MRA-6, of the Otto Engine Works. With reduction gear, it is only 76 inches long over all and develops 86 hp. at 1400 r.p.m.



The new high speed Winton-Diesel, Model 182-6, two of which are installed in the "Chief." Five by seven inches bore and stroke, it develops 100 hp. at 1000 r.p.m.

engine works. We want to know only that it does work, and I can assure you that the modern small Diesel, as well as its big brother, does work—and that it does its work well.

In 1925 I did not accept that 75 hp. engine until I had found a competent Diesel engineer to run a 24-hour test at the factory, and I sent the man who was to operate it to the factory for training. This year, I take what the factory sends me and let it go out with an owner or captain-operator who has had no more training than the instruction book offers. In 1925, if something went wrong, we had to send to the factory for a man to fix it. Now, it doesn't go wrong as often and a service man is usually available.

In the early days many good engines would hardly run twenty hours without the need of overhauling injectors and resetting valves. In 1935 I know engines that have run two hundred hours (the whole season) and only the oil filler cap needed to be touched. In 1930 so many adjustments and settings were required that one scarcely had time to get around once before it was necessary to start the job over again. In many of the engines of 1935 *it is impossible to make adjustments* as they are all made by machinery at the factory for all time.

The automotive influence is particularly noticeable in the greatly reduced length and height, together with high r.p.m. and piston speeds. From 1500 to 2000 r.p.m. are available, and 1200 is common. Since these speeds are too high for the average cruising craft, built-in reduction gears are found on many models.

In shortening the engines, most of the gadgets have been hung on the sides instead of the ends, and some of them, notably the oiling system, have been put inside the casing. Unfortunately, handhole plates to the bearings have disappeared. On the other hand, short bearings of large diameter give less trouble than long, slim bearings. (Some engines even have bearings of the same size as the pistons.) The crankshaft is now about the last thing we have to worry about, so that if the "innards" of our mill are harder to get at than before, we have much less reason to get at them. As with the elimination

(*Continued on page 83*)

So You're Going To Sail Across!

By

FREDERIC M. GARDINER

AN INSPIRING prospect! But perhaps you are not. Perhaps you are simply going for a cruise. Essentially, however, the difference is only one of degree since the same considerations, except for three factors, govern the preparations for the short cruise and the long ocean voyage. The three factors excepted are duration, the absence of ports of call, and the inevitability of night sailing in offshore cruising. It is too seldom realized, particularly by the inexperienced but also to a degree by men who should know better, that the rapidity with which the sea can take advantage of inadequate or slovenly preparation discounts the apparent unimportance of preparation for "just a short cruise." It is ridiculous to be an alarmist. It is equally ridiculous to suffer for lack of forethought.

Not all of the marine casualties occur on so-called "blue water" cruises. The *Lorelei* burned and sank in Long Island Sound. *Postscript* was lost almost within hail of the beach. The whaler *Wanderer* became a total loss on reefs within a few miles of her home port. These disasters may each have been one of those occasional, unavoidable accidents, but their significance is that one can get into trouble just about as fast five miles from shore as five hundred miles at sea! It undoubtedly appears remarkable to the casual observer that so many small yachts successfully cross wide waters, and it must seem equally remarkable that anything should happen to them in comparatively sheltered waters. Actually, the success of ocean voyages in small yachts, or big ones for that matter, is due in large part to the meticulous care with which preparations are made; and it seems reasonable to assume that the disasters on less spectacular cruises are too often due to careless preparation and lack of proper respect for the powers of Father Neptune.

Let us, therefore, accept the premise that cruising is cruising, that "blue water" cruising is simply an extension of, let us say, "green water" cruising; and that the recommendations and comments which follow apply to the one, and should be applied to the other — essentially, in other words, to all cruising. Let us approach the subject with enthusiasm, but with respect for our adversary.

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Safety, enjoyment, comfort. These are the prime requisites for a successful cruise, be it of two months' duration or two days. Fortunately, the preparations for safety need not entail any sacrifice in comfort or enjoyment. On the contrary, the more safety precautions taken the better the chance for the other two important items. All three terms are, of course, relative. To render a given ship "safe" can only mean to foresee as many possible dangers as we can, to guard against them to as great an extent as our ship's limitations allow, and to be thoroughly familiar with the limitations of the ship herself. Comfort can be achieved only within the limitations of the size of the yacht, her accommodation plan and equipment, and with the state of the sea and weather. Enjoyment depends largely on the personal tastes of the skipper and crew and — of major importance — the ability and disposition of the cook. One man may thoroughly enjoy rain and salt water down the back of his neck, with the ship mostly on her beam ends, and a lot of stuff adrift down below; another may prefer sailing or motoring in quiet waters, taking his comfort in luxurious ease. Whatever the case, safety, enjoyment, and comfort depend so largely on conditions aboard the vessel before leaving port that it may be said conservatively that fifty per cent of the battle is won or lost before a sail is set or the power turned on.

There are a number of dangers attached to cruising as there are, for that matter, to the majority of outdoor sports. To enumerate the more important of these and to study the means of protection against them; to calculate the hazard after all reasonable precautions have been taken, if hazard remains; to approach them from a purely factual angle, without prejudice and without exaggeration — this constitutes an important part of the duties of the owner and master of a cruising yacht.

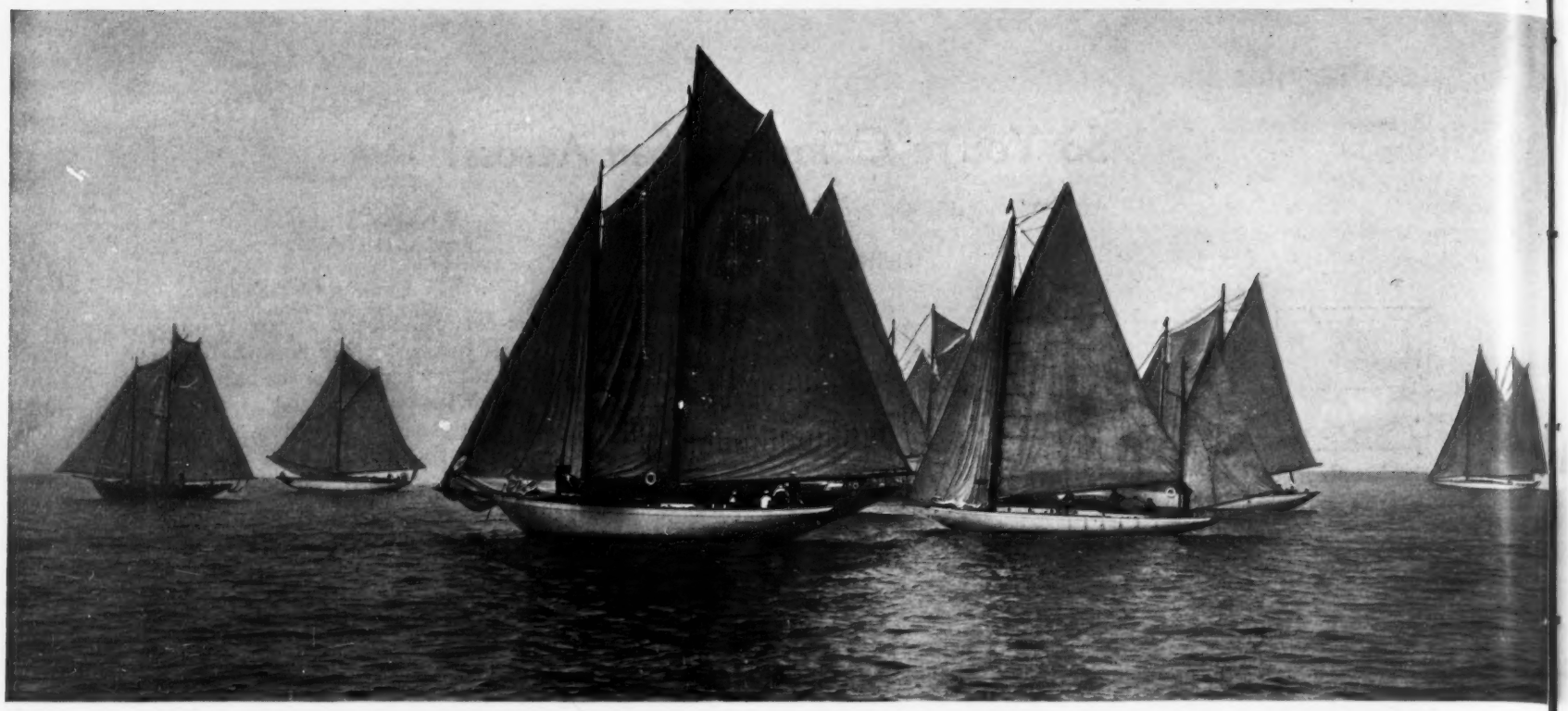
The most dreaded hazard of cruising, is not, fortunately, of frequent occurrence. Instances of fire on board ship where no carelessness can be traced are so rare as to be negligible. Furthermore, proper precautions against fire are neither complicated nor difficult. Without question, the primary *indirect* cause of fire on small yachts is lack of adequate ventilation, particularly in the bilges, engine room, and galley.

Most fires on auxiliaries and motor yachts start in the engine room. A few start in the galley or elsewhere. Before starting on a cruise, clean out your bilges and see that your tanks, gas lines and carburetors are tight and free from gas-sweating. Make it a rule to turn off the gasoline supply valves whenever the motor is stopped, both at carburetor and tanks. See that the exhaust line, particularly near the engine, is well insulated with asbestos or, better still, by a water jacket. Have a drip pan, covered with wire gauze, under each carburetor. See that each carburetor is equipped with backfire trap. If there is a separate installation for the lighting system, give its engine the same attention that you give the main engine. See that the only means of filling the gas tanks is through tight pipes leading on deck, and that the vents from the gas tanks lead on deck. If your yacht has been laid up, smell your bilges before starting your motor or striking a light below. If there is any smell of gas below, give plenty of time to air out before taking any chances.

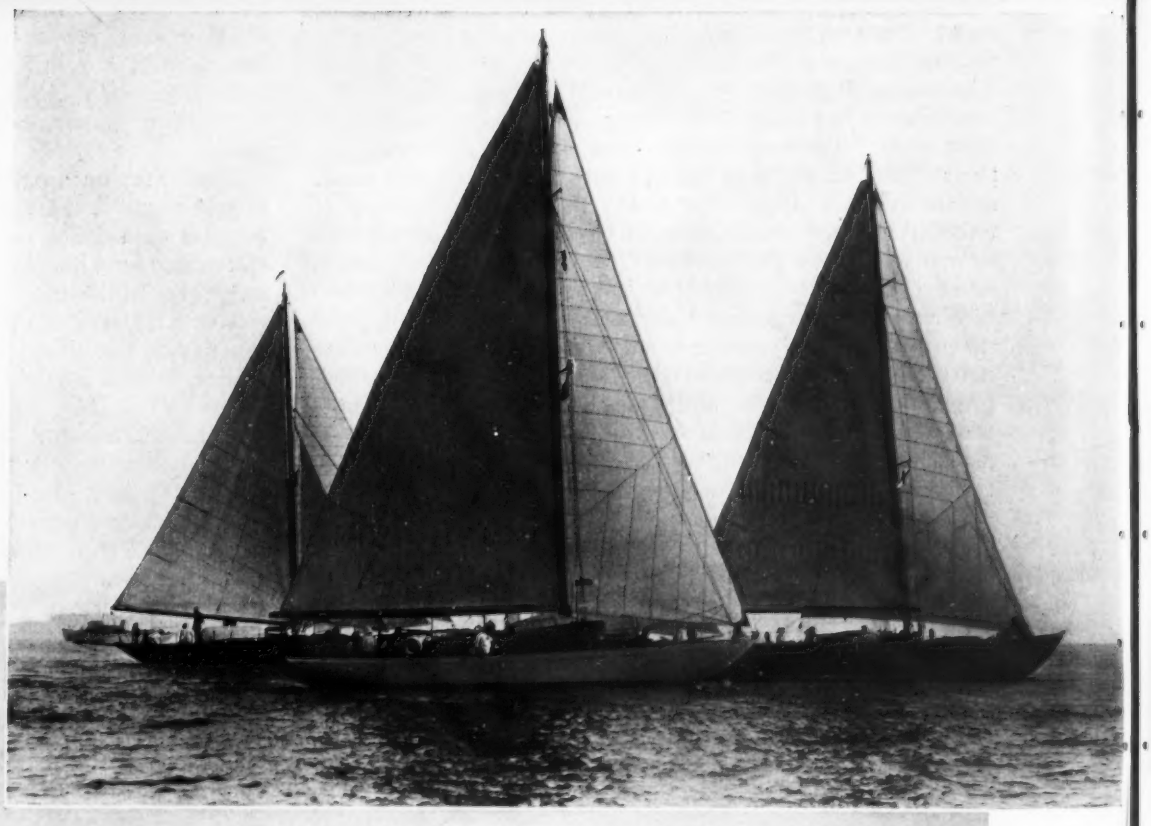
Keep your electrical connections tight and as free from moisture as possible. See that your storage batteries are well secured, and the terminals free from danger of short-circuiting. While the danger from storage batteries is remote, it is a fact that while charging they give off hydrogen. If the batteries are located where there is no circulation of air, a pocket of this gas may be formed where it may combine with air and make a highly explosive mixture.

In the galley the greatest safeguard is to use a coal range in damp or cold weather, and an alcohol cookstove in warm weather. While various forms of gas ranges are in use, they are not as safe as the two types mentioned. Be particularly careful with a gas installation that all joints in piping are tight, and that the pipes are rigidly held in place so that they cannot come adrift at the joints with the working of the vessel. *Never* use an odorless gas! See that towel racks and drying arrangements are placed so that there will be no danger of cloth coming in contact with open flame. Finally, see that all the "hot spots" in the galley are protected from inflammable parts of the ship with asbestos.

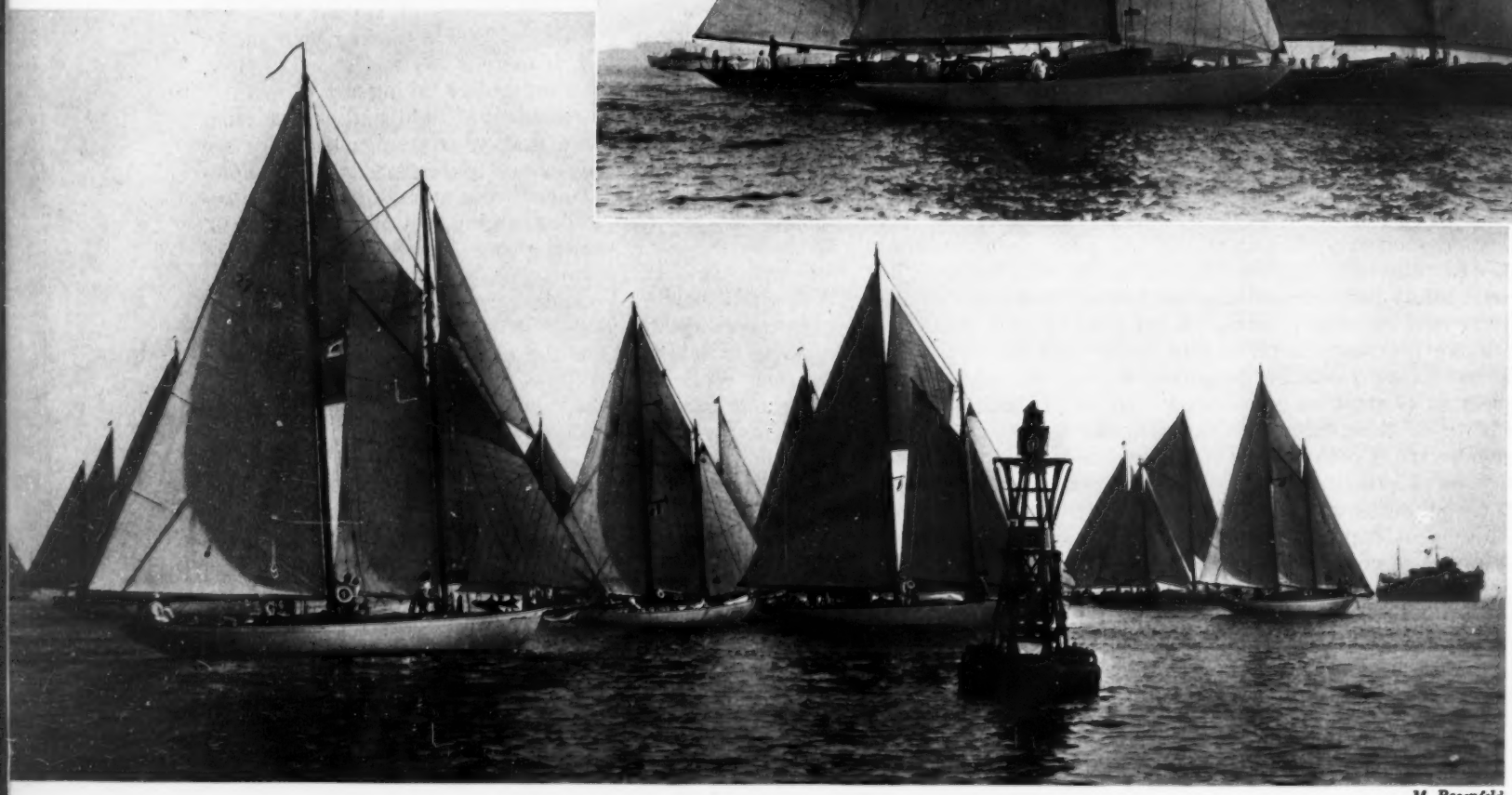
Fire may start from other sources, all the way from spontaneous combustion to carelessly dropped cigarette stubs. Prevention can be purchased only at the price of constant



The development of the small ocean going yacht during the past twelve years is strikingly shown by the picture, above, of the start of the Bermuda Race in 1923, revived after a lapse of fifteen years, and those at the right and below of the fleet in the 1934 race. In the earlier year not a single jib-headed rig is to be seen, efficient light sails were missing, and the boats were of various types developed chiefly for coastwise cruising



By 1934 the smaller class (at right) had gone in for a handy cutter rig, and the larger yachts favored modern tall rigs, with effective light sails and able hulls. In the last two races to Bermuda the best elapsed times were approximately 71½ and 75½ hours, respectively, as against 112 hours in the race of 1923



M. Rosenfeld

vigilance. The experienced yachtsman is subconsciously vigilant, sensitive to every smell, sound, or sight that spells danger in any form. The inexperienced must train himself, and exercise care with conscious effort until he is trained.

As a final safeguard, some form of fire-extinguishing apparatus is essential, if it be only hand extinguishers.

But whatever else you do, keep watch with eyes, ears, and nose; and *ventilate*.

Some seamen dread fog even more than fire. That it constitutes a real danger goes without saying, and the simple and only precautions which can be taken against it can be covered in a few words.

Plot your position accurately before fog shuts in. Have an accurate and recently checked deviation card, and know how to use it. Know the error, if any, in your taffrail log, and see that the log is streamed and read before fog shuts in. Know the rules of the road and fog signals by heart. Know what to do when you hear a fog signal, and *do it!* Have the lead handy on deck. Have a competent lookout forward. Figure proper allowances for known currents; this is the most difficult and usually the least accurate element of fog navigation. Do not be too proud to "stop, look, and listen," or too lazy to take sound bearings and soundings when practical. Have an "efficient" fog horn (bell at anchor). That means one which *works* and makes enough noise to be heard more than a boat length away!

There is no excuse for collision in clear weather, except breakdown of machinery or steering gear at a critical moment. And yet collisions occur in most mysterious ways, not only in clear weather but in broad daylight. There are two rules which, if always obeyed, would prevent such disasters. 1. Never "cross" a signal. That, of course, applies to sail boats only when they are using power, but remember, when you are "motoring" you are under power whether your sails are set or not. 2. If the bearing of an approaching vessel does not change, danger of collision exists. Under the law you are required to do your best to prevent such a collision, *even if you have the right of way*.

Collision in thick weather is a different matter. It is sometimes difficult, perhaps impossible to avoid. Many such collisions could be avoided if *both* vessels stop as soon as they realize that they are approaching each other and that collision is possible. That may seem an extreme precaution, but too often one or both vessels wait until collision is imminent before doing anything.

Another hazard of the sea is stranding. There is stranding due to faulty navigation; there is stranding in thick weather, also due to faulty navigation or navigation gear, but under possibly extenuating circumstances; there is stranding on a lee shore in a gale.

A careful navigator will keep his ship off the bottom in clear weather, except, possibly, in narrow, poorly marked waters with shifting channels. He must be careful to have adequate and accurate equipment. The dangers in clear weather navigation, granting the accuracy of the charts, arise from carelessness or overconfidence. It is not only important for the navigator to know where he is, but to know how far he *may* be from where he "knows" he is, due to currents, poor steering, etc. This is particularly important in making a landfall after a period of dead reckoning, and care must be taken to make sure of the identity of marks sighted in the distance.

For the navigator to keep his vessel off the bottom in thick weather requires greater care, greater vigilance, and the courage to admit that he doesn't know where he is, if he doesn't. If you don't know where you are in a fog, do something about it! Don't go plowing ahead in the hope that you'll find out where you are. If you know enough about your position to get on a safe course, get on it! Take soundings, slow down, stop, reverse your course, anchor — any of those things, or all of them.

Stranding on a lee shore in heavy weather is an entirely different matter. It presents a problem, not in navigation, but in ship design, ship handling, ground tackle and manpower. Your salvation rests in the lines of your vessel's hull, the design of her sail plan, your auxiliary engine, if you have one, and your own ability as master; failing these, it rests in the holding power of your anchors, and the competence of your crew. In other words, it might be said that your fate is sealed, or your safety assured, before you ever leave port. One of the most important considerations in buying or building a yacht for cruising is just what she will do under such harrowing circumstances. How will she lie hove to? Will she range ahead and claw her way gradually to windward, or will she sag off and work to leeward? Under what sail will she go to windward in a heavy sea? (If at all!) These matters, and the question of anchors and cable, will be discussed more fully when we consider the selection and equipment of the yacht to satisfy particular demands.

Perhaps the most difficult of all hazards at sea against which to guard is a man overboard. One reason is that it is so essentially a personal danger. With all the clever handling, seaworthy design, life lines, bulwarks, etc., which may be combined on a given cruise, almost inevitably there comes some occasion when the only thing which saves somebody from going overboard is the rapidity and accuracy of his reflexes, and the strength of his arms and legs. Were it only the inexperienced who fall overboard, one might say that it was a danger which could be corrected simply, or only, by training. But it is often the best seamen who go in this manner, partly, without doubt, because the most dangerous jobs naturally fall to their lot.

The design of the ship has some bearing on the matter, as it has on a good many dangers of the sea. A wet ship, one with a tendency to take green water on board, should be avoided; also one with insufficient freeboard or with too little rise in the sheer fore and aft. To be comparatively dry, a vessel must have plenty of buoyancy in her forward and after quarters. Too quick a motion also creates a danger; the steadier your yacht, the better the chance for her crew.

Life lines, of course, from as far forward to as far aft as possible. The present practice of rigging life lines is not adequate, as it leaves too much space between the line and the rail. Diagonals should be rigged between the stanchions. By all means, have a cockpit. A vessel may be flush-decked and still have a cockpit. It should not be large, that is, it should not be out of proportion to the size of the yacht, and it *must* be self-bailing.

Have handholds wherever possible. Eliminate, as far as possible, protuberances on deck, such as cleats, winches, etc. Have a rail of sufficient height, at least, to give a good foot brace. High bulwarks are, of course, a great protection to the crew, but the sacrifices necessary to place them on yachts of moderate size confine their pactical use to yachts of large dimensions, and strong, properly rigged life lines will do the work and avoid the disadvantages.

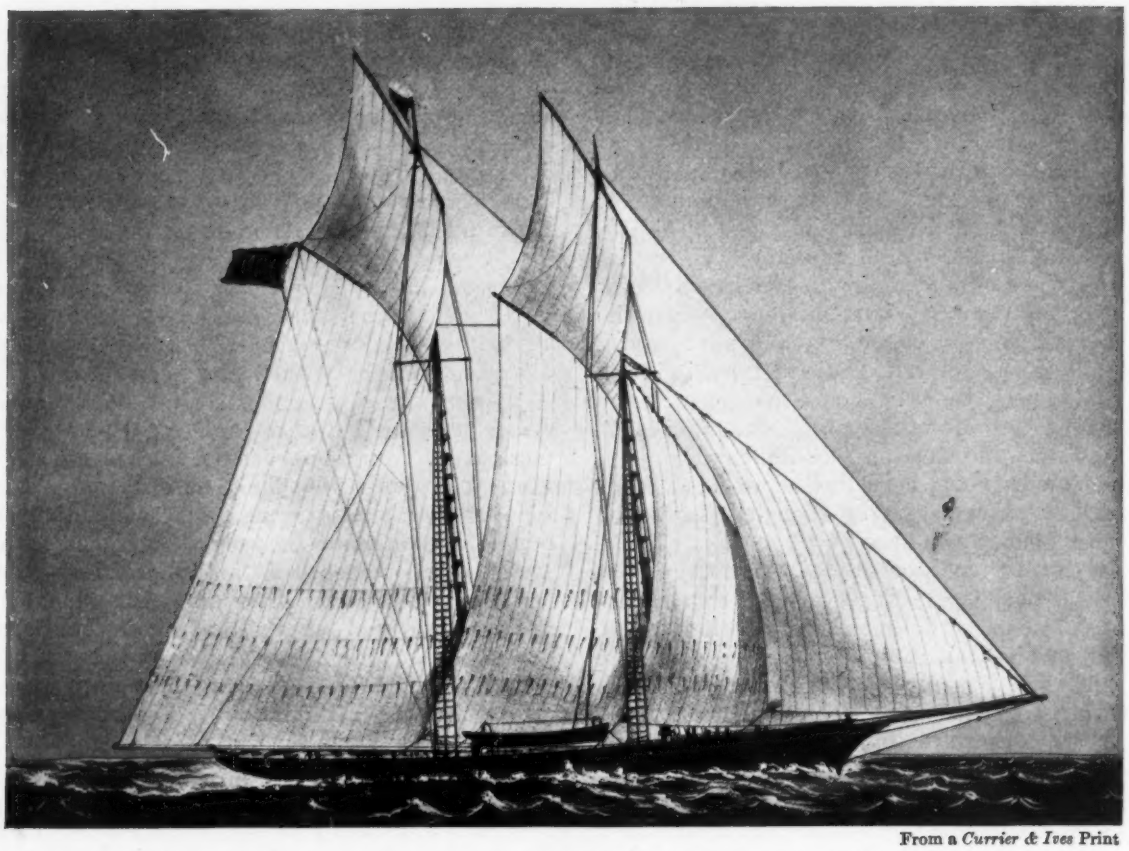
The word "dangerous" is, of course, a comparative term. It can be said that a sea which would be dangerous for the *Normandie* might not endanger a much smaller vessel, and certainly would have no effect on a watertight gasoline drum except to roll it over and over. This is a matter of synchronization between the vessel and the seas. For our purposes, a dangerous sea is one which will threaten serious damage to a cruising yacht. Within reasonable limits, design and construction have everything to do with this, size very little. Within our interpretation of the term, dangerous seas need not be expected except in the open ocean and perhaps in

(*Continued on page 93*)

Ocean Racing

II—The Great Contest of 1870 Between "Cambria" and "Dauntless"

By ALFRED F. LOOMIS



From a *Currier & Ives* Print

James Ashbury's "Cambria," the first English contestant for the America's Cup, was the only challenger that has enlivened the proceedings by racing across the ocean to the fray. A comparatively slow schooner, she won the Transatlantic race by the superior headwork displayed by her afterguard

THE next great ocean race took place in July, 1870, when the English schooner *Cambria* was pitted against the American schooner *Dauntless* in a battle to windward from Daunt Rock, Ireland, to Sandy Hook, New York. Following three and a half years after the race of 1866, it aroused the public to a pitch of great excitement, and brought yachting to the front page of newspapers as it had never been brought before. On July 25th, exactly three weeks after the start, the *Cambria* was boarded by a New York pilot cruising in the vicinity of Nantucket Shoals, and the news was conveyed ashore. The next day she was reported (probably incorrectly) off Moriches, Long Island, and the day after that reporters gathered aboard the Sandy Hook Lightship and at other points of vantage to flash the news of her arrival to an expectant nation.

It is, perhaps, impossible to recapture the tension of the moment after a lapse of sixty-five years, but I quote the following from the contemporary account in *The New York Times* to show that even the gentlemen of the press were transported by the event: "A sharp lookout was maintained at the telegraph station, near the extreme end of Sandy Hook, during the morning, in anticipation of the arrival of one of the two yachts. . . . The operator's room at the station was filled with half a dozen active newspaper reporters, who were constantly consulting Mr. James Farrell, the bronzed and veteran ship-news reporter, who, with telescope in hand, was keeping a vigilant watch seaward. His keen eye swept the water for miles and miles in every direction, but failed to make out anything resembling either of the two anxiously expected vessels. Precisely at 3:05 p.m., however, he turned from his glass and announced that a schooner yacht was coming up toward the Hook, but that she was not near enough for her colors to be discernible. A look through the same glass showed to the reporters a faint speck on the ocean, slightly resembling the sails of some vessel. The speck rapidly approached, and assumed plainer proportions, until it was discovered to be the sails and spars of a schooner. Nothing was visible of her hull which seemed to be a part of the sea on which it floated. Exactly forty-one minutes elapsed, according to Mr. Farrell's calculations, before she passed the lightship, seven miles outside of Sandy Hook. Her outlines were then fully and clearly distinguished. The wind was blowing off her port quarter, due east, and she scudded along under full sail. The flags which she carried at her fore, maintop, and peak were made out to be the American colors and British ensign, together with a private pennon, containing the letter C in the center. She was at once pronounced to be the *Cambria*."

In the excitement of the moment I see that I have divulged the winner of the race at the beginning of my story. In extenuation I must plead that I feel as if I were there with the bronzed and veteran Mr. James Farrell, hanging on his words, sweeping the water for miles and miles in every direction, and hoping against hope that the *Dauntless* would justify the faith of the American patriots. She should have done so. She was owned by James Gordon Bennett, Jr., she was commanded by Bully Samuels, and for additional talent she had aboard Dick Brown, the *America's* one-time

skipper, his son Charles, and Martin Lyons, another famous New York pilot, who had been Samuels' sailing master in the *Henrietta*. It is open to us now, in keeping with the spirit of the '70s, to prove that *Dauntless*, defeated in a race of 3000 miles by only one hour and forty-three minutes, won a moral victory; but I think it is better to examine the race critically, deflate a few legends that have grown with the passage of time, and admit that *Cambria* deserved to win.

Cambria was built by Michael E. Ratsey and was launched at Cowes, Isle of Wight, in May, 1868. She rated 188 tons, Thames measurement, and measured from stem to sternpost 108 feet by a beam of 21 feet and a draft of 12 feet. Her mainmast from deck to hounds was 61 feet long, and above that she sent a maintopmast 35½ feet. Tall though this topmast was, they thought nothing in those days of housing it with the approach of bad weather and sending it aloft again when conditions warranted. *Cambria's* foremast was 56½ feet tall and its topmast rose 32 feet 3 inches above its cap. The main boom was 61 feet long, and the bowsprit projected outside the stem a good 35 feet. With the exception of the lower masts these spars were all more ponderous than we would be content to wrestle with these days, and this gives rise to the suspicion that the heroic iron men of wooden ships were handicapped by partially wooden heads.

In those days they piled on canvas where it did the least good, and, for lack of experiment, slowed their yachts and endangered their men with inefficient rigs. However, *Cambria* was blessed with a beautiful hull, and in racing in England had demonstrated that she ranked with the very best. Her owner, James Ashbury, commodore of the Royal Harwich Yacht Club, believed that she was superior to anything of American construction, and with that thought in mind challenged for the America's Cup.

James Gordon Bennett, Jr., at this time vice commodore of the New York Yacht Club, thought that he could show English yachtsmen a few things untaught by the *America*, nineteen years before, and took the schooner *Dauntless* to England for the purpose. She had been modeled by J. B. Van Deusen, originator of the *Fleetwing*, and was launched for S. D. Bradford, Jr., in June, 1866, at Mystic Bridge, Conn., with the name of *L'Hirondelle*. Built by Forsyth & Morgan of hackmatack and white oak, she was locust-treenailed throughout, was copper-fastened below the water line, was sheathed with copper, and was a first rate piece of construction. Originally 115 feet long with a beam of 25 feet and a depth of 10 feet, she was in 1869 so completely altered under Bennett's ownership that she became almost a different vessel. Her new length was 120.7 feet on deck to a water line length of 116.9 feet, a beam of 24.8 feet, a depth of 9.7 feet and a draft of 12½ feet. New spars were

James Gordon Bennett, Jr.'s, "Dauntless" raced the "Cambria" in 1870 and, under different ownership, the "Coronet" in 1887, winning neither race. But she was a grand vessel and was sailed by Bully Samuels in the same undaunted style that he employed aboard his famous clipper "Dreadnought"

given her, a little taller than the old, and measuring 89 and 90 feet above deck. Her topmasts were increased from about 28 feet to 42, and she swung a main boom 72 feet long. Entitled to carry a crew of 37 men, she spread canvas to the area of 7000 feet — much of it, like *Cambria's*, being in the wrong places and requiring a colossal expenditure of energy to keep the yacht at her best sailing speed without endangering her spars.

Easy though it is now to belittle a yacht of a previous generation, *Dauntless* was among the best in 1870, and Bennett had as good reason as Ashbury to believe that in a Transatlantic race his schooner would fly the winning colors. Having been sailed to England in 1869, *Dauntless* wintered at Cowes, was refitted in the spring, and after one unremarkable race from Cherbourg around the Nab Lightship and back, in which she carried away her topmast and finished third in a fleet of five, she was refitted for the transoceanic race. After some correspondence, which was not without acrimony, the start was set for July 4th off Daunt Rock, situated eight miles from Queenstown (Cobh), Ireland, and the prize was established as a set of silverware valued at £250.

At about 2:30 p.m., in a fresh westerly which soon brought fog and rain, the two yachts began the race. Three o'clock saw *Dauntless* drawing ahead and weathering on *Cambria*, which tacked inshore to escape. *Dauntless* followed her in and at 4:30, after another tack, her crew had the satisfaction of seeing the British schooner safely tucked away under the American's lee. An hour and a half later *Cambria* stood in near the Old Head of Kinsale and *Dauntless* maintained the starboard tack offshore. Here the two yachts parted company and here, it appears, *Dauntless* made her egregious error. She permitted *Cambria* to pursue a northerly route, while she came home alone well to the southward.

There was, as indicated above, no end of talent aboard the *Dauntless*. Bennett had with him as guests Larry Jerome, who had been shipmates with him in the *Henrietta*, Leonard R. Jerome, Charles A. Longfellow, son of the poet, who had crossed in the sloop *Alice* in 1866, and a *Herald* reporter named James Tooley. Of the professionals, who numbered 34 all told, Samuels, the Browns, Lyons, and J. Taylor constituted a brain trust as formidable as any that modern times have known. Awake or asleep they could be depended upon to outwit Neptune and Æolus. If you have a lively imagination you can see Bennett cast a scornful glance to leeward at the receding *Cambria* and hear him assure his brain trust that what they had done to the Englishman in the first three hours was only a miniature edition of what they would do to her in the next three weeks.

So *Cambria* hugged the Irish shore, and logged her noon position the next day as 56 miles northwest of Cape Clear. She boasted no such imposing array as graced the quarter deck of the *Dauntless*, but her skipper, one Captain Tannock, had been for years on the Liverpool-New York packet run, and his mates, Clark, Roberts, and Charles and Richard Rood, also knew their way about on deck. The foremast hands numbered 33. James Ashbury, sailing westward into a sea of printer's ink, had with him Dixon Kemp, the writer whose name nearly every living yachtsman knows, and one A. B. Clark. Among them all there evidently was one who knew that a boat which cannot go to windward with her competitor must break with her and seek a different slant of wind.

Just what slants *Cambria* got it is difficult to tell at this late date. In the following typical excerpt from her published log it will be seen that the direction of the wind is left entirely to the reader's intuition:

"At 12 M. the distance sailed, by account, was 56 miles NW of Cape Clear. The latitude, by observation, was 51:36. At 3 p.m. a fresh breeze blew, strong at times, with clear weather and a heavy cross sea, the ship behaving well. At 8 p.m., fresh gale, single-reefed the mainsail, a very heavy sea running, and the ship behaving nobly. July 6. At 1 a.m., weather moderating, fine breeze and cloudy. 5 a.m. set the maintopsail and shook reefs out of the foresail and mainsail. 8 a.m. hard squall; got topmasts on deck and single-reefed mainsail. At noon weather moderate."

That there was a sufficient quantity of air may be judged from this notation in the log for July 8th: "At 1 p.m. a fresh breeze blowing and clear; all sail set. At 3:30 p.m. the foretopsail backstays gave way, causing the foretopmast to go over the side, carrying away the foretopsail and jib topsail. All hands employed in clearing the wreck and getting another topmast on end, and getting the sails aboard. 9 p.m. reefed the mainsail; a fresh breeze blowing and cloudy." That night they shortened still further by reefing the bowsprit but, the weather moderating later, they reset sail and at noon of the next day showed a run of something over 200 miles — indicating that here, at least, they were getting easterly weather.

Although already separated by 400 miles of tumbling sea, *Dauntless* at this time was experiencing conditions that were similar. In her case they brought about the second tragedy of ocean racing. *Dauntless'* log for July 7th reads: "At 3 a.m. took in gaff topsails. At 6½ housed topmast. At 7½, wind and sea increasing, took in flying jib. In furling it two men — Charles Scott and Albert Demar — were washed off the boom. Hove to the yacht for two hours, lowered foresail and got out boat, but failed to see anything of the missing men. At 9½, the wind having increased to a gale, we reluctantly gave them up, took the boat on board and kept on our course. Double-reefed mainsail and took bonnet out of foresail. Ends in a fresh gale, thick, rainy weather, and short, high sea."

Better favored by the fates, *Cambria* had worked north to 54:59, her highest latitude, and from the 7th she slanted slowly down, taking what little current there was on her port beam until she came within the helpful influence of the Labrador Current. Then, on the 14th, she headed west for a day, again with a fine breeze behind her, and then beat southwest for Cape Race. On the 17th, the weather turned cold and ice was sighted, and on the 18th, when St. John's and Cape Race lights were picked up, two large bergs were seen close inshore.

Jacking the sails and topmasts down and up, and encountering kaleidoscopic weather day in and day out, *Cambria* finally worked within range of the New York pilots and took one aboard at 7:30 of the evening of the 25th, half an hour before sighting Nantucket Light. On the 26th, for a change, she met with typical summer weather, with haze and light variables, and worked down to a noon position at Latitude 39:54, Longitude 70:50. In the evening, a fresh breeze from westsouthwest (the direction is at last given) carried her westnorthwest on the port tack, and at 11:00 the following morning a norther off the Long Island shore took her to Sandy Hook in short order, her finish occurring at 3:30 of the afternoon of the 27th. *Cambria* had crossed in 23 days 5 hours and a half, more or less.*

It was stated two days later in *The World* that *Dauntless* probably lost the race by having a surplus of knowledge on board, and the ingenious excuse was advanced that as Dick

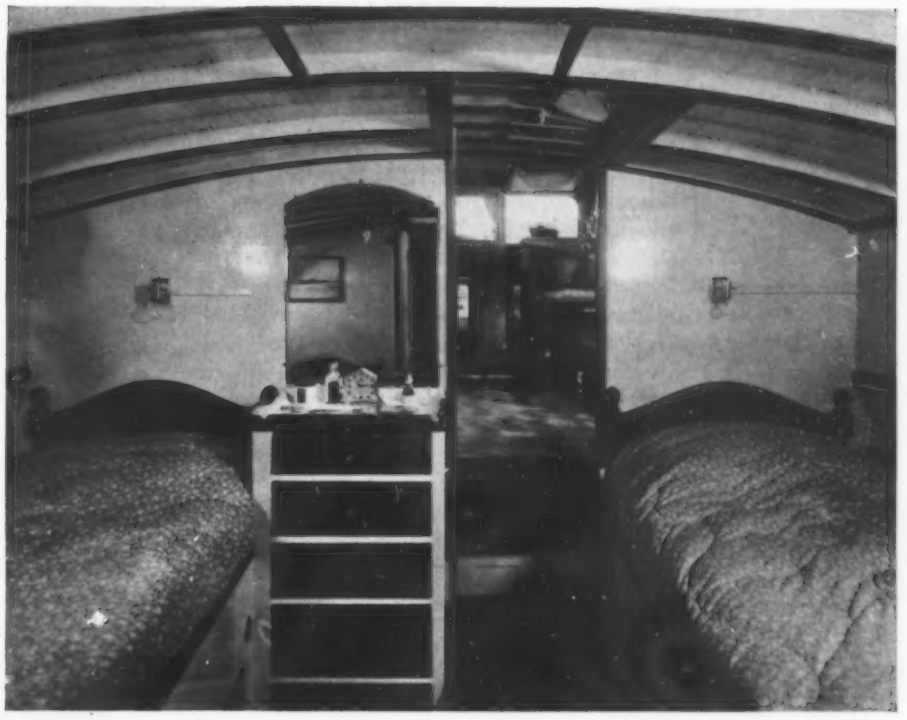
(*Continued on page 90*)

** Although the lightship was the announced terminus of the race, "Cambria" timed herself at 3:30 p.m. as she passed a buoy off Sandy Hook, and the press published this as the official time. "Dauntless" took her own time at 4:47 as she passed the lightship, and the winning margin was therefore erroneously given as 1 hour and 17 minutes. But the official times for the race are "Cambria," 23 days, 5 hours, 17 minutes; and "Dauntless" 23 days and 7 hours. The official winning margin is thus 1 hour and 43 minutes, and by deduction "Cambria" passed the lightship and won the race at 3:04.*

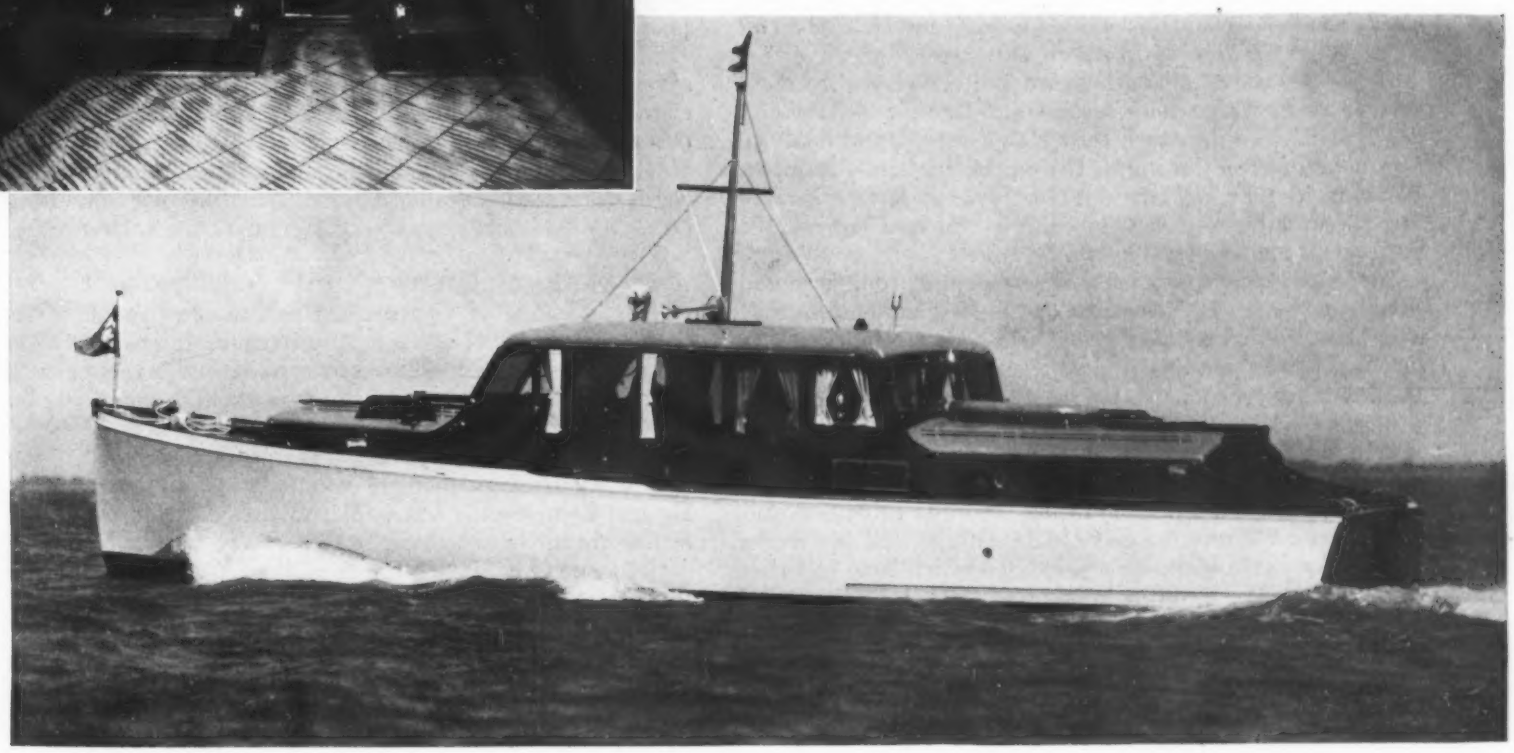
"Elb II," a 1936 Matthews Cruiser

One of the first of the new series of standardized cruisers built by the Matthews Company, "Elb II" is 46' 10" long, 11' beam and 3' 2" draft. She is a twin screw boat with twin rudders, and her power plant is a pair of 90–110 hp. Kermath engines which give her a speed of better than 17 miles per hour

"Elb II" is owned by E. L. Bleakley, a Pennsylvania yachtsman. She will cruise in Florida and Bahaman waters this winter



The forward cabin (above) is arranged with two berths, bureau and hanging lockers. A toilet room adjoins it. The deckhouse amidships is spacious and well equipped. The two raised seats (left) permit a clear view ahead. Windows on all four sides assure an abundance of light and air. The after cabin has two berths on the port side and a "dinette" to starboard which forms a wide double berth at night. The sleeping arrangements are for six, but accommodations for ten are possible in this model. The galley is just abaft the deckhouse



Sea Terms Ashore

By

JOANNA C. COLCORD

THE English tongue when our forefathers brought it to these coasts was already well salted with words and phrases that recall the time-submerged maritime origins of the English folk. Young America, spread thinly along the further shore of the Atlantic, was also a seafaring nation, and continued to bring nautical flowers of speech ashore and plant them firmly in the soil of our common language. There they took idiomatic root and flourished, until today their users are often unaware of the slightest flavor of the sea in the words and phrases they employ. In the pages that follow, the terms in italics all began life as seafarers. Some are self-explanatory; others are explained in the notes.

I. Common and Uncommon Uses of Sea Terms

When we use such words as *ahead, alongside, aloft, athwart,* we are speaking the sailor's language. Words denoting location with an "a" in front of them are always suspect of having been lifted out of his vocabulary. If we "*swab out*" a wound, *get a purchase* in raising a heavy stone, *overhaul* the contents of a bureau drawer, or *rig up* an aerial, the operations received their christening at his hands. Things ashore as well as at sea may get *adrift;* they may even *capsize* unless they are firmly *anchored.*

At the country club, we serve on the finance committee which is trying to lift the "*dead horse*" incurred during the depression. We drive our golf-ball down the *fairway.* When we fly, we try to do it under care of a *pilot* (though *sky-pilot* has reference to quite another profession) who knows how to manage his *ship.* Keeping a *log* is not unknown ashore, either as part of a factory time study or as a private journal or diary. Within the past year, there has been coined in this country the term *stranded* communities to describe those which can no longer offer their citizens a livelihood.

When surprised or confounded, we are *all at sea, taken aback,* have the *wind taken out of our sails,* are *brought up all standing,* or get *brought up with a round turn.*

At the *fag end* of a long day, we find ourselves *fagged out* or even *sunk.* We go home a *wreck* and *turn in;* then, after a good night's sleep, we *turn out* feeling *buoyant,* and ready to *turn to* and *larrup* the world. If we push ourselves too hard, however, we may *keel over* in a faint, or even have to be *laid up.* Under adversity we are exhorted to *bear up* and be patient till matters *blow over.*

In an argument, we *take our departure* from accepted premises. We try to *fathom* our opponent's contentions, but sometimes cannot *get the drift* of them because they seem, *by and large,* to have no *bearing* on the point at issue. We may think our adversary has *taken too much latitude* and in many respects is quite *out of his reckoning!*

The navy of old England still *sails* proudly through our everyday speech. We say something is *first-rate,* or *A 1* — both terms coming from the rating accorded to British sailing frigates. We secure a decisive advantage, and say we *got the weather gauge* of another person — which is to say that we, under sail, came down on our enemy from the windward and had him at the mercy of our *broadside* which we still fire off at him through the press or on the speaker's platform, in hopes of *putting him out of commission.* We may find that we are *in close quarters,* but we have *another shot in the locker,* and we *press it into service.*

The flags of old warships still wave verbally to the breeze; we *sail under false colors, show our true colors, put a false color* on our action, or perform it *under color of* doing something else. We still may take our choice of *striking our colors* or *nailing our colors to the mast!*

The navy of today continues to contribute to speech ashore, through the channel of vigorous slang. We are grateful to our boys in blue for a useful term, *gadget,* and for an adjective of high praise for both persons and things, *seagoing.* "*Down the hatch!*" is a toast well known ashore; while *shove off, pipe down* and *hit the deck* are wildflowers that frequently adorn the landsman's vocabulary.

Not only our common speech, but the language we reserve for our poetic flights of fancy, acknowledges a debt to the mariners of old. When our orators mount the *rostrum,* that imaginary platform stems back to the pulpit-like edifice on the bow of a Roman galley, whence the overseer exhorted the laboring slaves at the oar to greater exertions. If we are *overwhelmed* by confusion, we are using an old Anglo-Saxon word which means that a great wave has broached aboard us and sent us heels over head.

Behind the *bulwarks* of our liberties we feel safe as did the old time man-o'-warsman behind the wooden walls of his good ship's sides. We seek to *plumb* the unknowable by our imagination, but the leadsman in the ship's chains gave us the word. The *lodestar* of our affections was to the ancient mariner a guiding light in the heavens — Polaris, in Ursa Minor. A *castaway* to us is a person who has suffered moral, not physical, shipwreck. A chronic trouble maker is by courtesy referred to as a *stormy petrel,* thus perpetuating the sailor's belief that the bird brought bad weather. We print on the covers of our little books of poems the titles *Flotsam* and *Jetsam,* quite unaware that these terms have been precisely and prosaically defined from time immemorial in admiralty law. When our heroine *sweeps* into the room, she is moving in the stately manner of the old barges and pinnaces, which were propelled by long oars called sweeps.

The *favoring gale* was just a fair wind to the mariner of the seventeenth century; for him, the *doldrums* had no neurotic connotation. To *stem the tide* meant to point his ship's bow, or stem, directly into the current. Being *in deep waters* or *in the breakers* or *foundering* had no slightly literary flavor to his ear — they were stern actualities. When he saw something out *to the bitter end* it was very concretely the anchor cable.

II. Salty Language Ashore

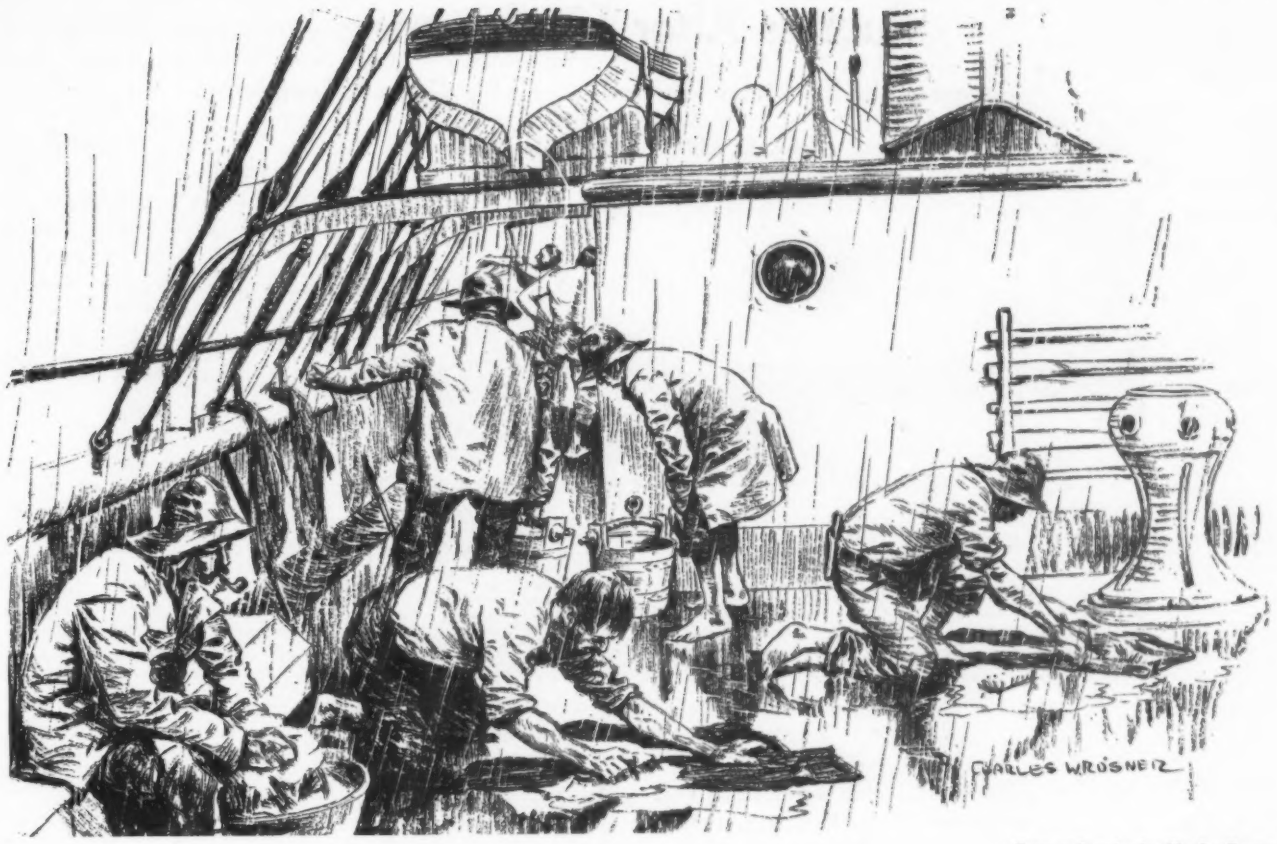
The language of vituperation ashore owes much of its flavor to the salt of the sea. Any barroom quarrel between landsmen — as much of it as might be quoted in these chaste pages — would supply a dozen phrases whose origin was on shipboard. Let's try our hand at reporting one.

Bill Lubber, a *hulking* truck driver, comes *barging* into the saloon where several men are *spinning yarns* and *carrying on.* He has been *boozing* but is *able to navigate.* Several of the others are *in the same boat.*

"Somebody here stole the *tarpaulin* off my truck when it was parked by the *bulkhead,*" roars Bill, cursing like a *bargee,* "and I'm going to *manhandle* the man that did it."

All hands look up, and a *rakish*-looking chap in the corner, *togged out to the nines,* says in a *stand-offish* manner, "Ah, don't be such a *crank!*"

"Who told you to *stick your oar in,* you *son-of-a-gun?*"



From a drawing by Charles Rosner

In the Doldrums

yells Bill, *squaring off* at the speaker. "Don't give me any of your *slack!* For all your *toplofty* ways, you're all *tarred with the same brush*, and I'm going to lick every man here unless somebody *blows the gaff* and tells who did it. I'm *in good trim* and I can take a dozen of you on, *hand-a-runnin', right off the reel* and keep it up till *all's blue!* You've got to *fish or cut bait!*"

"*So that's how the wind blows!*" returns his adversary. "I'm *right on deck* when it comes to fighting, and I don't like the *cut of your jib* anyway, or the *slush* you're giving us. Take off your coat and *look out for squalls!*"

"*Ease off*, Bill," another man interposes. "You're in pretty *shoal water*. You don't know who you've *got in tow*. You think you're a *whale* of a fighter but this feller can *walk away with you*. You'd better *give him a wide berth*." He whispers a name in Bill's ear.

"Go to the door, Tom," directs the unknown, "and *stand by* to tell us if the cop *heaves in sight. Keep a good lookout.*"

"The *coast is clear*," is Tom's report. "Now *let her fly!*"

But Bill, *between the Devil and the deep sea, backs water*. "I guess I was *on the wrong tack*," he mutters. "I've got to see about *splicing* that old *fender* on my truck."

"*Any port in a storm*," laughs his opponent. "*Gangway* for the man that can lick the crowd. *All ashore that's going ashore.*" Guffaws follow *in the wake* of the retreating Bill, as he *puts out* for his truck.

III. Sea Terms in the Market Place

The vocabulary of business seems to be larded copiously with terms originating at sea. Explanation of this fact is not far to seek when we recall how intimately the beginnings of commerce in this country and England were connected with seafaring. The manufacturer's *shipment* of goods goes nowadays by train or motor as often as by boat; he *boards* a Pullman car and occupies a *stateroom* when going to a convention; the *caboose* of the engine that pulls him comes from the Spanish "calabozo" by way of the cabin or forecastle of a ship.

In beginning a new undertaking, the business man *clears the decks* and gets everything *shipshape*. He is careful to *get his bearings* before *laying down the lines* of a new project. He does not *tackle* it by *dead reckoning — not by a long sight!* When he gets *squared away*, he does not *back and fill* about his undertaking but *sails into* it with vigor. He engages assistants who *know the ropes* and he won't have a *stick-in-the-mud* about the place.

Consider the case of John Landsman, who, after *sounding out* the state of the market to get *the lay of the land, embarked* upon a venture in *wrecking* and *salvaging ramshackle* houses for the *junk* that was in them. As things *opened up*, he *signed on* a partner, *chartered* a *fleet* of motor trucks and *floated* stock. They began to *forge ahead* and were soon *booming along;* but *cross currents* began to develop between Landsman and his partner, who lacked *ballast*, failed to *work his passage*, and was little more than a *figurehead*.

Landsman discovered that he had given his partner *too much leeway* and that he was *playing fast and loose* with the firm's assets. The two were soon *at loggerheads*. Friends tried to *pour oil on the troubled waters;* but one day they *fell foul of* each other and *parted company*.

With Landsman alone at *the helm*, the concern began to *get under way* again, and it seemed *all plain sailing*. Success was *in the offing;* but a trusted employe who was in the toils of a *landshark* embezzled some of the funds and *cut his cable;* Landsman himself got *roped in* to an unfortunate speculation; and a contract that had been his *main stay* fell through. With this *sheet anchor* gone, it looked as if everything else might *go by the board*. He was *hard up* and had to *sail close to the wind*. The *shipwreck* of his prospects seemed imminent; he was *heading for* trouble.

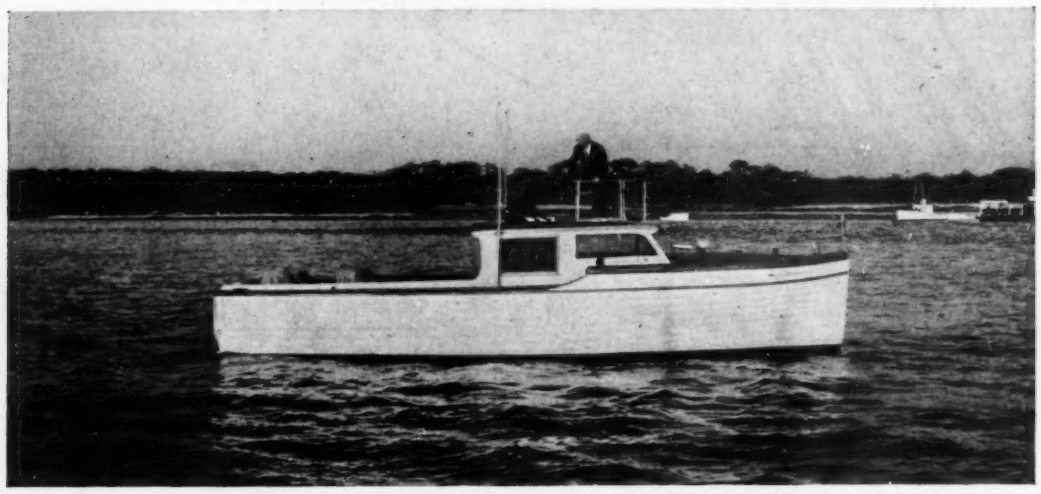
His creditors began to *bear down upon* him, but he met

(*Continued on page 82*)

Success After Six Summers

Some of the Trials and Tribulations of a Big Game Fisherman

By S. KIP FARRINGTON, JR.



Captain Harry Conklin's "Lillian," built expressly for big game fishing. Note the outriggers which are used for bluefishing

IT WAS in 1925 that I made my first trip off Montauk swordfishing with Captain Sam Edwards on his commercial boat *Magdeline*. In two trips I saw three fish harpooned. The thing that impressed me the most, I remember, was Captain Sam riding his bosun's chair, away out on the end of the pulpit, dressed in a long white linen duster, such as automobilists wore years ago. Being unable to get excited over sticking swordfish with harpoon and lilly iron as a sport I returned to my 36 holes of golf each day but looked forward to another trip the following summer. That was the year Julian Crandell caught the first marlin ever taken in the North on rod and reel, but no one then thought of catching a swordfish in the same fashion.

The following two summers I made a few trips with Kenneth Edwards, the 16-year-old son of my former skipper, and took keen delight in watching him beat his old man to several big broadbills and harpoon them with some marvelously directed shots. All of the Edwards family, descendants of Long Island's leading whaling captain, Joshua Edwards, can do anything on the water, and do it well. Ken let me take a shot at three fish and I succeeded in missing one of them, much to my chagrin, and he generously refused to allow me to reimburse him. Swordfish were worth twenty-nine cents a pound that day and the fish looked as if he would go 200 pounds dressed, so one can see that his loss was not merely a sporting chance missed. Still, I was not greatly impressed with harpooning. But in early September when the news spread that the late Oliver C. Grinnell, after two years of hard work, had caught the first broadbill on the Atlantic Coast with rod and reel I began to show some interest — and a great deal more when I returned from the South that winter, having been lucky enough to catch my first marlin.

These were the circumstances that led to the start of my Montauk fishing. In the summer of 1928 I went offshore with Captain Harry Conklin, one of the best fishermen that ever rounded Montauk Point. We caught plenty of tuna, bonita, false albacore and bluefish and we had lots of fun experimenting with the then new Japanese feather bait. However, we still felt that the first broadbill caught was a fluke and not until Mr. Grinnell took two more did we begin to change our opinion. The following summer when Charles Lehmann captured a 430-pounder from Captain Tommy Gifford's *Lady Grace* we started after them in earnest. However, that year I was able to go offshore for only a few days.

So 1930 was the first year I went after *Xiphias Gladius* in earnest, and it was then that I made my greatest mistake. I deserted Harry Conklin and, instead of putting myself in the hands of another man his equal as a fisherman, I proceeded to charter a fishing boat with a friend, tried to rig all my own baits, and attempted to catch a swordfish. As only one man in the East has been able to pull this trick in the eight years broadbill have been fished for, one can appreciate my error. We saw ten fish, got a bait to five and had one strike on a squid bait, which was promptly cut in half, one end going up the leader and the other sailing ten feet over the water. Of course our broadbill picked that piece up. I harpooned two fish that summer, incidentally the last I ever struck until June 1935, as will be told later.

The following summer I saw fifteen fish, got a bait to seven, and had one more strike on a squid, which again was knocked up the leader due to my inexperience in sewing a bait. I did catch a mako of 105 pounds and two guests aboard caught marlin, so the season was not a complete failure. And one day when a friend had the boat out a broadbill swam up and grapped his daughter's feather on a nine-thread line which, very naturally, the fish promptly cleaned off.

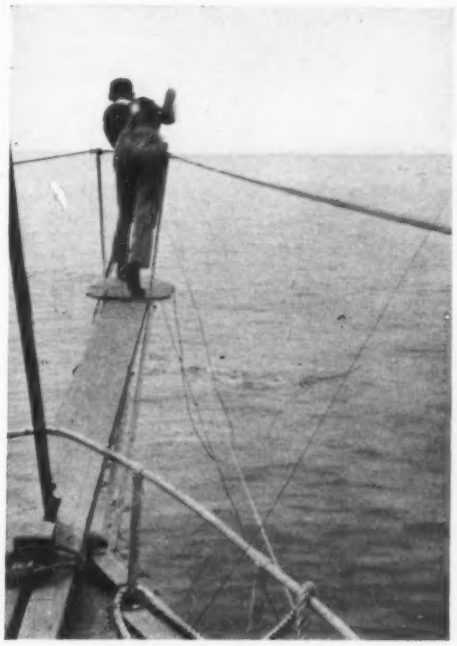
It was in 1932 that I began fishing with Tom Gifford. Before he arrived at Montauk I opened the season with Harry Conklin and while cruising around within 400 yards of Charles Lehmann's *Alabi* we saw him hook and catch a 390-pound fish. We were always so near to success and yet so far from achievement. That day has another vivid recollection for me and while I did not admit it at that time, it was my only experience with seasickness. So, possibly, I would not have been up to fighting a big fish as there was the worst ground swell running that I ever have seen off Montauk. However, I believe that when a broadbill hits a bait no one in the world could possibly feel seasick. That evening, when we got in, the *Jolie Brise* had delivered to a Coast Guard cutter, outside the Point, the crew of James H. Ottley's *Adriana* who had been rescued the night before.

Tommy Gifford arrived at last and went to work with his usual enthusiasm. During the following four weeks we sighted fourteen fish and got baits to ten. None of them gave us a tumble. We tried one old soaker fourteen times before he went down, and two others eleven times each, changing baits every third time. We presented the bait to them using a kite, with a long and short line, at high speed and slow, but to no avail. Owen Duffy, "Bill" Hatch and Walter Clay went out with us on three different occasions. So there I was with four of the finest fishing guides on the Atlantic Coast on board but it proved too big a job for them. Yet we were within a quarter of a mile of Arthur Peck when he foul-hooked a 190-pound fish in the tail. The hook tore all the way down the back to the dorsal fin, but did not pull out and the fish was landed. Surely, something was wrong. Gifford was heartbroken and swore the new outriggers he was designing would accomplish the trick next year.

The following Spring business affairs kept me in my office and swordfishing was limited chiefly to Sundays. Gifford brought the *Lady Grace* from Miami, and out we went in her. No matter how late I was up on Saturday night I would go directly to the boat. Tommy has not yet forgiven me for going to sleep several times offshore. He wants every pair of eyes on board looking for fins, and in this he is right. However, no one can reasonably expect to pick one day out of the week and be certain of seeing big fish. The results of the summer, therefore, were not surprising. We saw only three and got a bait to only one. The most disappointing experience of the entire six summers occurred on July 21st, 22nd and 23rd of that year. Office or no office, I believe I might have gone out, had not the market started to break. The fish were offshore by the dozen those days. Luckily, I told Tommy to take out Dr. Shepard Krech of East Hampton, which he did, and I was at the dock that night to see them come in with a fine fish weighing 282 pounds. In those three days over 250 fish were harpooned by commercial men, over 25 hooked on rod and reel, and five caught. So I was forced to miss the three greatest days of swordfishing Montauk has ever known.

My lack of luck was beginning to be a joke with everyone. I was told that a broadbill would probably strike at once in southern waters, so the next spring, when I was fortunate enough to see and get a bait to the second broadbill ever seen

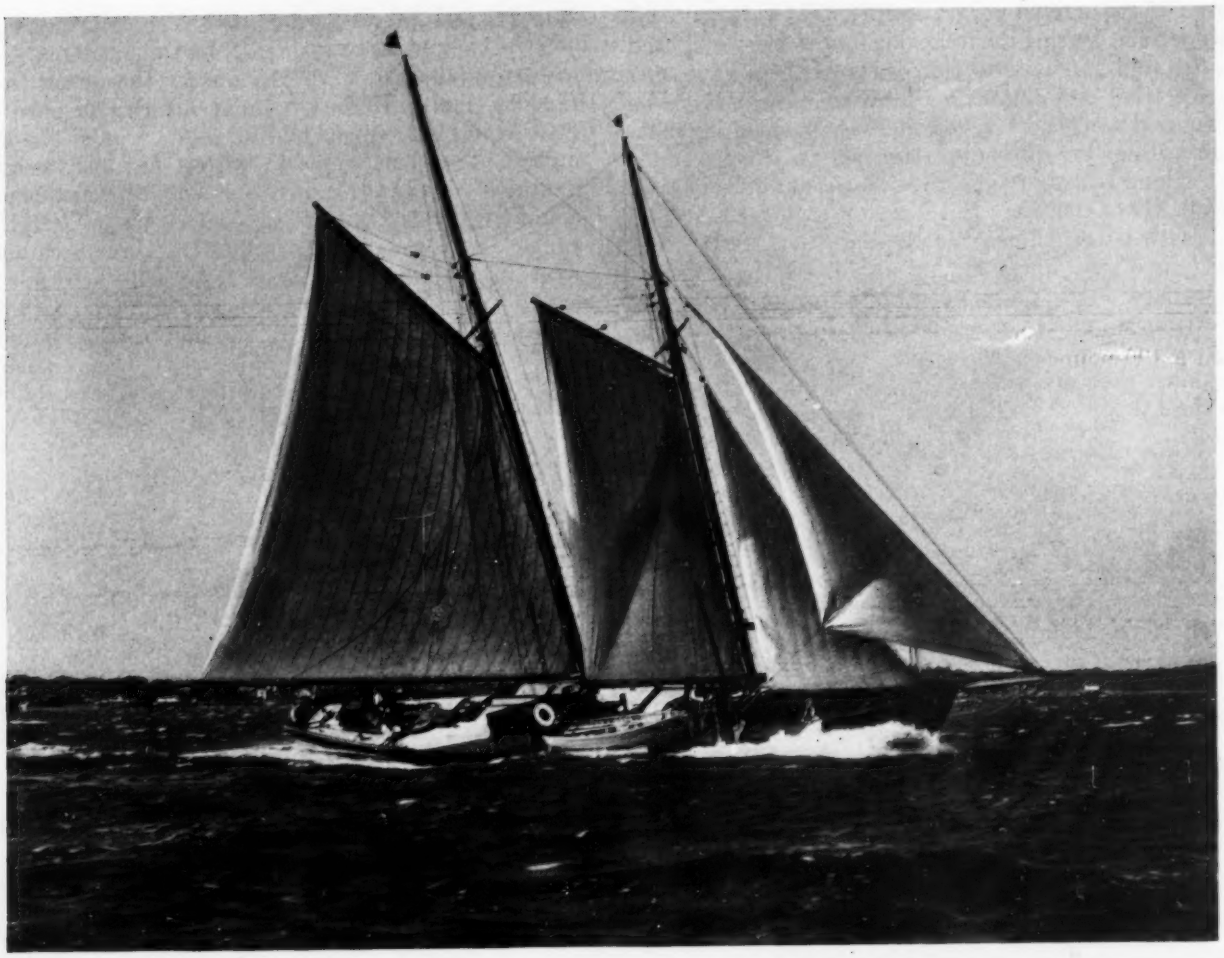
(*Continued on page 87*)



Off Montauk in the commercial boat "Jennie," with men aloft looking for swordfish. Left. Kenneth Edwards, of Montauk, throwing a harpoon at a broadbill swordfish which has just gone down in a swirl of water

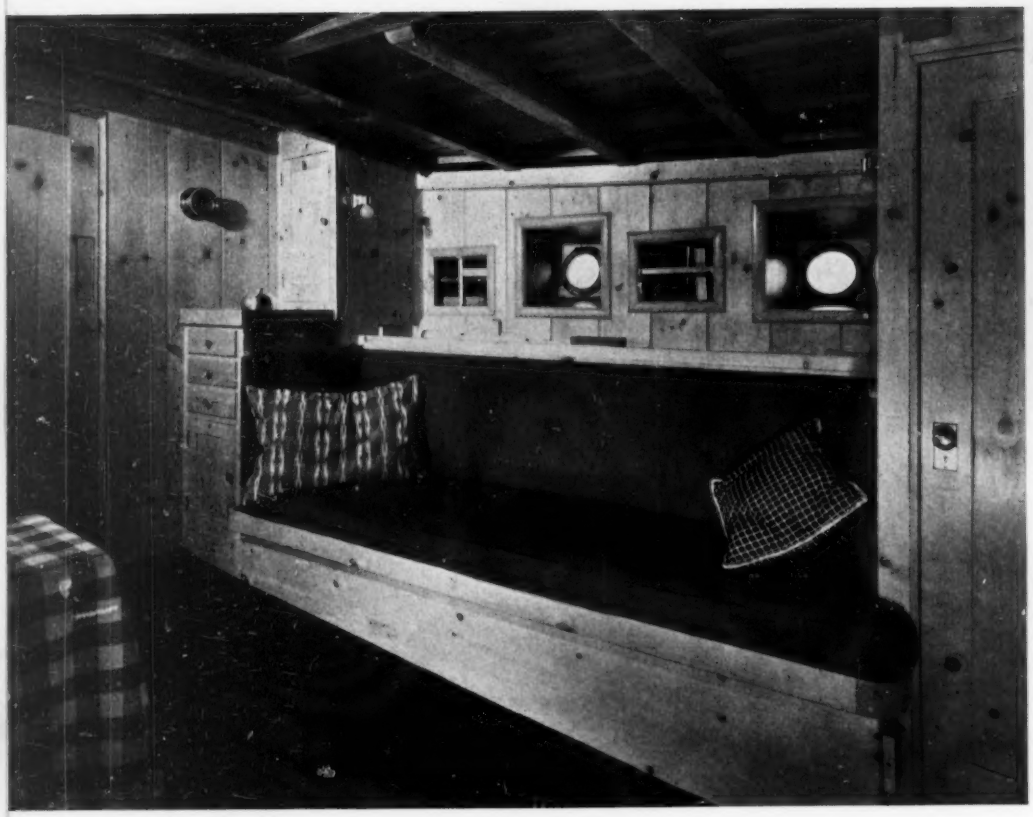
The 257-pound swordfish caught by Edward H. Kendall. This is one of the most perfect specimens ever taken off Montauk

Mrs. S. Kip Farrington, Jr., with a tuna weighing 175 pounds, one of the largest fish of its kind caught on the Atlantic Coast by a woman



"Nordlys"

A Cruising Schooner of the Fisherman Type



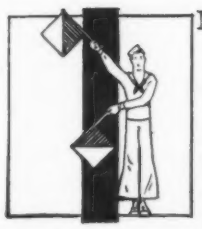
M. Roun

This husky schooner yacht is 71 feet in length over all, 55 feet on the water line, 16 feet 10 inches beam, and 10 feet draft. She was designed by Ford, Payne & W. J. Roué for Chester Bowles of New York, and built at City Island by Robert Jacob. As auxiliary power she has a 6-cylinder Buda Diesel. "Nordlys" is heavily built, with oak frame and Philippine mahogany planking. During the past summer she cruised as far north as Newfoundland

Hints on Tuning Up

Part II—The Importance of Proper Trim

By GORDON RAYMOND



N a previous issue (July) I discussed the troubles found in trying to get a boat in the best shape for racing, taking up the matter of sails, sheet leads, spars and so on. All these things are important, but the boat herself must also be in the best trim to stand a good chance of winning races, and there are certain things that may be done to make her go well in light weather as well as when the breeze is piping up.

The location of weights in a boat has far more effect on performance than most yachtsmen realize, and it takes time and experimenting to find the balance necessary for maximum speed. Most people believe that because the naval architect designs a vessel to float to a certain water line, and has her painted accordingly, that she is fastest when sailing on that line. This is not always so, and only trial and error will prove in what trim she performs best under various conditions and on various points of sailing. Hardly anyone would think that a yacht sails best with her lead keel moving back and forth several inches; yet that is what happens when the crew changes position. Four men weigh well over 600 pounds. That weight, moved forward or aft as much as three or four feet, has considerable effect on the balance of any small boat and is equivalent to moving all the ballast several inches. Therefore, find out how she goes best on the wind or when running, stow all spare sails, gear, etc., in a given place in the boat, and train the crew to return automatically to the proper place after every shift of position for sail handling. Invariably, chunky, beamy boats will be found to sail faster down wind when trimmed slightly by the head, for it is always easier to push water than to pull it, but the best trim for each boat has to be found and her peculiarities analyzed.

Speaking of weight brings to mind the many advantages of having small sheets, guys, etc., for use in light weather, and particularly in wet weather when the regular gear is heavy and stiff. Many a race in light going is lost because jib sheets do not render freely, or the main sheet does not run out smartly when rounding a mark. These things are important and getting them right is a part of tuning up. The knowledge that his boat is not properly tuned up will affect the skipper's judgment to a marked degree. In light weather he will hesitate to tack when he first wants to, because he knows that the jib won't fill or that a man will have to be sent forward to clear it, thus disturbing balance and shaking the boat. So he holds on and may find later that he has blundered into a tactical error as a result of this procrastination.

While on the subject of the weight of gear and ropes as a factor in tuning up, let me mention blocks, and the advantage of having blocks with light shells and large sheaves. With special blocks, I have materially increased power when hauling in sheets, and reduced friction when paying out in light weather. This last is very important as anyone who has heavy brass blocks and oversize main sheet knows — the boom simply will not run off in light airs unless one of the crew pushes it out. That means loss of time, especially when the entire crew is needed to set the spinnaker smartly and get everything squared up. Heavy metal blocks hang down, and the sheets drag around their edges and jam. Little things like these are as important in tuning up as major items, such as sails and rigging, for generally the latter create an advantage measured in feet per mile, while a poor turn in a large and "hot" class may lose a good position and result in the loss of several places.

While on the subject of free running gear, all rope when new is laid up tightly and is inclined to kink and be stiff even after the turns have been taken out for the first time. The only way to liven up new rope is to put it through a stretching process. This may be done on board by setting it up the length of the boat, and leading the end to a winch, being careful not to set up abnormal stress and to throw out a few turns before each setting up.

The easiest way is to take the new gear home and set it up taut in one length between two trees, after swaying away on the free end until all extra turns are out and the rope has no inclination to kink. Then make it fast again, as taut as possible, and get someone to help sway hard on the bight. This stretches the rope evenly. Take up the slack, throwing out a few turns, and repeat the operation until there is no more stretch. Then set it up hard and leave it over night. In the morning you will find that your new, stiff rope will coil down easily and smoothly and has increased in length almost ten per cent. This last is not an unimportant point for the cautious buyer.

Swivels on the head and the tack of spinnakers are invaluable, for two reasons. First, no matter how the sail is sent up, it is always possible to get any turns out quickly; second, the skipper escapes the agonizing experience of seeing his spinnaker all messed up just when he needs it most, and having the crew run about, jerking and yanking and raising the devil in general. Finally, the thing has to be lowered and cleared anyhow, which should have been done in the beginning. In their zeal, many crews try anything first but the right thing, and the skipper suffers in proportion to the gymnastics displayed.

For fast spinnaker work on small boats, large snap hooks on spinnaker tacks, guys, sheets, etc., are important. Small ones are apt to jam, are hard to handle, and straighten out in a hard chance. Oversize snap hooks are a source of confidence, are twice as fast to snap on and five times faster to take off. Above all, never use an open snap hook of any size on the halliard, as it may hook into shrouds or stays aloft; if it happens to catch a jumper strut stay, someone has to go aloft. Use the modern snap shackle for spinnaker halliards, and everywhere else if possible, but try to get the type with a small eye in the pin so that a short lanyard of cotton or marlin about two inches long can be attached. This increases the speed in handling these gadgets several times. If they do not close readily without first pulling the pin, file off the shoulder of the pin where it meets the end of the shackle. This operation, and the occasional use of a little oil on pin and spring, will enable one to hook the shackle into anything and snap it closed with a back flip of the hand. Attention to these apparently insignificant matters will be instrumental in winning races for you besides building up a wonderful reputation for your spinnaker man.

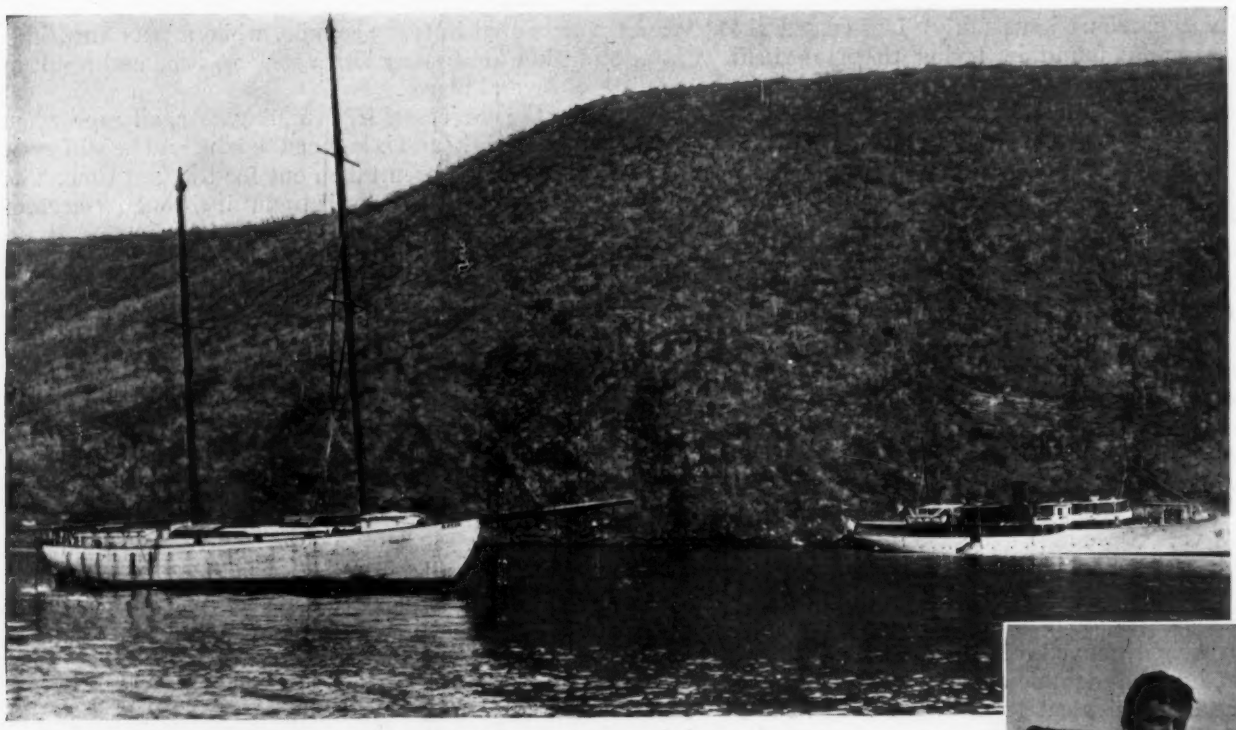
Be prepared for broken battens. Few boats have a complete extra set aboard. This may seem a trivial matter but, to begin with, most battens are made as light as possible (often too light) and the result is that they will not stand violent slatting of the sails without breaking. Therefore, have spare sets aboard and, in addition, one extra heavy set

(*Continued on page 89*)

"Director's" Doldrum Passage

By

BRUCE AND SHERIDAN FAHNESTOCK



"Svaap," William G. Robinson's ketch, looks desolate and forlorn lying in Tagus Cove, in the Galapagos. "Kallisto" is anchored in the background

MODESTLY ignoring the thunderous plaudits of the wharf crowds (tribute to Admiral Byrd on his return to civilization), we weighed the wooden-stocked, rusted old anchor of the little *Director* (it is always best to emphasize the smallness of a yacht in an account of her voyages) and dropped down Balboa Roads for the vast Pacific and what we hoped would be the Galapagos.

Behind us lay motion. All the living, moving things of a teeming city — Jimmy Dean's Bar, the Silver Dollar, Kelley's Ritz. But ahead lay adventure. Ah, adventure! Salt water boils, hardtack, maggots, fishhooks in your hand, black plague, dengue, malaria, cholera, beriberi, not to mention bubonic!

The rusty smokestack of the Panama laundry faded over the dim Central American horizon. The two porpoises which always escort small boats out of harbor were nowhere to be seen — perhaps a bad omen. Over Tobaga the sunset flamed briefly, and in no time at all we were at sea.

Our navigation department, in the person of the inscrutable Dennis Puleston, nodded knowingly as two bobbing lights appeared to starboard. "Mona!" both he and Sheridan cried, as if mentally shaking hands.

Soon, though, a light of great intensity showed off to starboard and a bit ahead. "A setting planet," they agreed. Soon, too, they discovered the two lights to be the range lamps of a Luckenbach freighter which had escorted us down the roads and, further, that the "setting planet" was the sought for light, 800 feet high, on outlying Mona Island.

At the cry of, "Come and get it!" the wheel was deserted and we left hurriedly for the foc's'le where we dashed down food and engaged in a flood of reminiscence. We had distinguished ourselves on the Isthmus! Had we not made the longest transit of the Panama Canal on record? Wasn't our motor the surest of all engines to stage a breakdown at the crucial moment? Let us go back! We had arrived at Cristobal (on the Atlantic side) on the 23rd of January. That was fine — run of twenty-two days from New York. All well there. But for eight days we lay off Cristobal, accomplishing virtually nothing, but very busy with receptions and other social affairs. After a week of this we began to call each other "Intrepid!"

Then came the great day — we would pass through the canal at last. The pilot came aboard, we weighed, and headed up the approach — under sail. The engineer's curses, loud and impressive, came up to us through the engine room ventilator. It was thus that we arrived at the foot of the locks. At this point the engineer gave

An easy trick at the wheel

The expedition's navigator

up, came up on deck and dumped his tools overside. "To hell with it!" he cried. "Let's have a look at the fair village of Gatun." So the electric locomotives hooked on to *Director* and literally jerked us through into the lake. Captain Kariger, head of the lighthouse service, invited us to tie up alongside his immaculate wrecking barge.

With the jungle in such close proximity to the ship, it was a temptation to abandon the cruise right there and strike out for what we had started after. But we repaired our lost radio aerial, with the kind assistance of the genial captain and his men, and found time to beat the jungle until we had two boa constrictors, two sloths, a coral snake, a parrot, six iguana lizards, and several nameless small rodents aboard the ship. By this time she came to be known among canal folk as the "Fahnestock Zoo." Much of our time was spent in throwing these companions out of our bunks, plates, toothbrushes, etc. It was with a feeling of regret that we allowed another pilot to come aboard and we headed up the snag-infested lake to Pedro Miguel Lock. Closing our eyes to the crashing, bumping progress of our zoo along the lock walls, we eventually made the anchorage at Balboa and caught glimpses of the Pacific between the units of the heavy traffic heading down for the Atlantic.

Our stay at Balboa resulted in the reorganization of the zoo. We made a picture in color of the brilliant Panamanian carnival at Panama City, and we got rid of the larger of the snakes. (We understand that Lulu Belle, the largest, refuses to sleep in the Tulsa Zoo without a pillow.)

The day came when we had everything aboard that would fit and were worrying about bunk space. Hugh Davis and Wilson Glass went back to Oklahoma and we had a new crew forward. We must mention them.

George Willis Glasgow, a Jamaican negro prizefighter, who is champion of the Canal Zone and a sharp hand at the wheel, breezed on board with a duffle bag and this remark: "Where, gentlemen, is my stateroom?" Of course, we showed him where it was, handing him a deck brush as he went. Since then, he has become "Hey Hey!" to us all, as well as champion of the Marquesas.

In the sad quarantine station at Fort Amadore we found Tehati Teikihonotoua, a Tahitian boy who had been picked off the *Seth Parker* by the *Australia* after the well-known SOS and carried, with the Duke of Gloucester, to Balboa. He came to us willingly and shows no inclination to leave. His French and our Marquesan are slightly confusing. For instance, if we want the foresail taken off (which we seldom do), we say something like the following: "Paaii take 'm off le grande et petit, fiaia Eio."

All lights, ships, etc., having been left behind, we settled down for the months in the doldrums. Our water was carefully doled out. We remembered *Svaap's* eighteen days, and *Cimba's* fourteen, and the *Seth Parker's* sixty (and she had two Diesels).

After two days we had gone half the distance. It was at this point that a minor disaster occurred. The pith helmet went overboard on a jibe. Now, this may seem an inconsequential loss, but you must realize that with the helmet went our last claim to the title of "explorer." How, rightly complained its owner, can a man explore without a pith helmet? He mourned for days.

On the 14th, the third day out, dawn came in a blaze of glory. It was the skipper's watch, and he sat there eating crackers and brushing the crumbs out of his flowing red beard. Dennis roused out and came on deck. He searched the haze ahead for Malpelo Island, lofty sentinel of the Gulf of Panama, an 850-foot rock. There came a roar of laughter and his eyes grew as big as pump gaskets, as he looked astern and slightly off the quarter. The skipper laughed with him, a bit hollowly, thinking it was another "limey" joke.

"Look!" cried *Uldra's* skipper, "I think that's what you're looking for!" And, too true, Malpelo loomed huge behind us. We had passed it close to starboard. When Hey Hey was questioned concerning the events of his watch, he explained, "Yeah, I seen that cloud but I thought it was an island so I didn't call you."

We went on, bearing a bit south of our mark to catch the Trades, but no changing of the course changed our luck. The breeze held. We had the power on for one night. At 1:00 p.m. on the seventh day we sailed into Darwin Bay at Tower

(*Continued on page 86*)

"Hey Hey" opens a drinking cocoanut

"Chi Chi," the Marquesan, plies needle and palm

Bruce Fahnestock exhibits a captured shark

At Westport, N. Y., before the lake widens out, the cruiser will find the home and dock of the Westport Yacht Club in a beautiful setting of wooded shoreline backed by mountains. Below, the terrace and dock of the club make one want to linger at Westport

Photos by J. E. Abbe, Jr.

Beautiful Lake Champlain

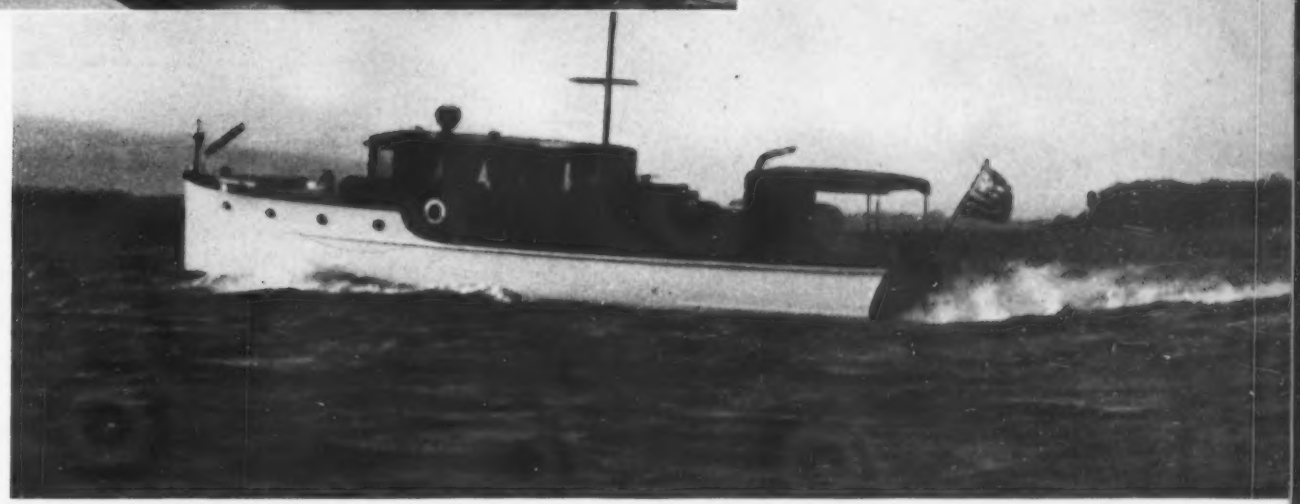
Which Affords the Finest Fresh Water Cruising in the East

Needham Photo Studio

Left. From the waters of the lake near Valcour Island the Revolutionary gunboat "Philadelphia," sunk in battle, was raised last summer, in excellent condition after lying on the bottom 159 years. Below. From the Hudson River one reaches the lake by the picturesque Champlain Canal

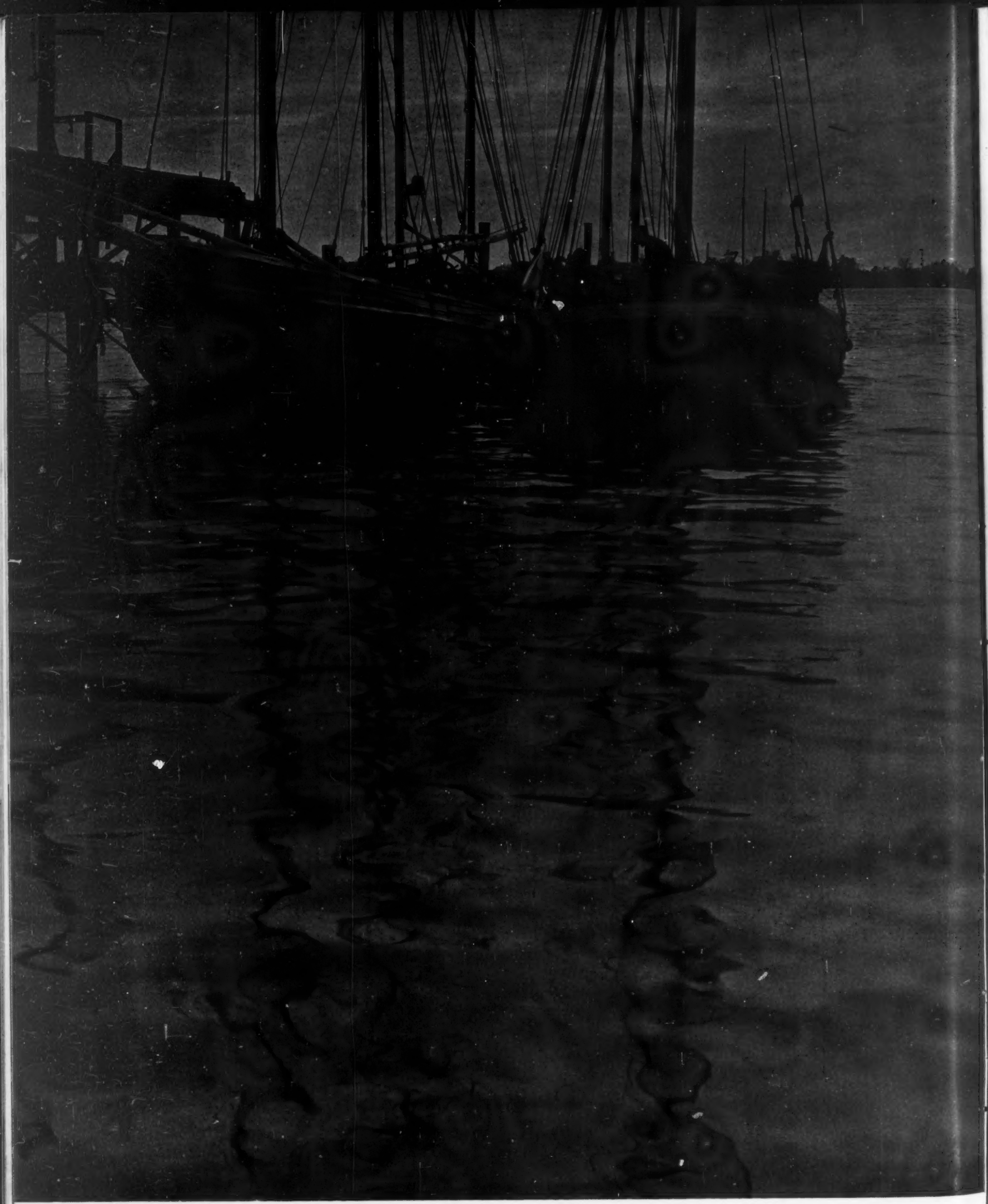
J. Ruppert Schalk's cruiser "Linwood III," which was used as a base for the salvage operations in locating and raising the gundalow "Philadelphia," shown on opposite page. Sunk after an action with the British in 1776, the hull, with mast still standing and her three guns still on deck, was located in 57 feet of water one-third of a mile from shore and was raised by Captain L. F. Hagglund. The vessel will be preserved by the Fleming Museum, Burlington

Photos by J. E. Abbe, Jr.



Once out of the canal and headed down the lake towards Crown Point, a wide panorama of wooded hills and shadowed mountains opens before the cruiser. The lake is approximately one hundred miles in length from Whitehall to the Canadian boundary

Left. Adequate compensation for the speed limit in the canal is derived from the beauty of the surrounding farming country and interest in activity along the banks. Below. A snug anchorage for small craft is found in landlocked Partridge Harbor, with the best of fishing — bass, pickerel, pike — just outside. Many coves and indentations furnish shelter for the cruiser



At Biloxi, in the heart of the Gulf Coast cruising ground
From a photograph by John Kabel

Captain James Cook

His Voyages of Discovery in the "Endeavour" and the "Resolution"

By GREGORY ROBINSON

OLD seafaring books tell us that from time immemorial the coal trade on the east coast of England has been an excellent nursery for seamen. Those whose business has been in the North Sea will know why, while the others will gain an inkling by an examination of the chart of the waters 'twixt Tyne and Thames.

James Cook, the seamen's seaman, was a survivor of this nursery. He was no come-by-chance hero. True, he came of poor parentage as the world reckons, but they were none so poor that they did not endow him with a stout heart, a good digestion, and a mind able for the storage of experience; that is inheritance enough. It is likely that this child of a moorland farm became weatherwise soon after he started crow-scaring, which was not long after he had learned to walk. We may suppose that as assistant in the little general store at Staithes, where he weighed sugar by the pound and cut off tape by the yard for the fishwives, he laid the foundation of that quality of accuracy with which long after he measured up this old world of ours.

We know that come green shutter time at the shop he was away down among the fishermen, lending a hand to haul the cobles in and out at the Staith, learning that close intimacy with the way of a ship which can be acquired only by early practice in small craft. We may reckon that the first time young James was sent ashore at Wapping for stores for the collier *Freelove*, wherein he came to be bound, he brought the boat back alongside without waking the skipper in his bunk. Handiness in a boat was more thought of in those days than many school certificates.

Old King Coal has never allowed the ships in his service much time in harbor, so that for nigh ten years we can picture young Cook in foul wind and fair, wet and shine, gathering experience as boy, man, and mate. As mate, doubtless he made his own corrections on the crude charts, and annotated the simple sailing directions of the day. Then, when he was in a fair way to become a master in the coal trade, suddenly, as it seemed, he stepped on board H.M.S. *Eagle* to volunteer as an able seaman. That was in 1755.

He was seven and twenty, standing well over six feet, spare, but hard as nails — his mother was of Cleveland where the iron comes from. A firm mouth and steady eye, he was of the sort that cannot be overlooked, and within six weeks of joining the *Eagle* he was made master's mate. As such he served for two years, gaining the regard of the master and Captain Palliser. Sir Hugh Palliser was to survive to raise a noble monument to this man who had entered the ship as an A.B. In 1757 came his appointment to the *Pembroke* as master. In her he was engaged at Louisburg and, in 1759, when she went up the St. Lawrence, Cook was selected to carry out under fire the survey and buoyage of the channel whereby Wolfe went his way to victory and death at Quebec.

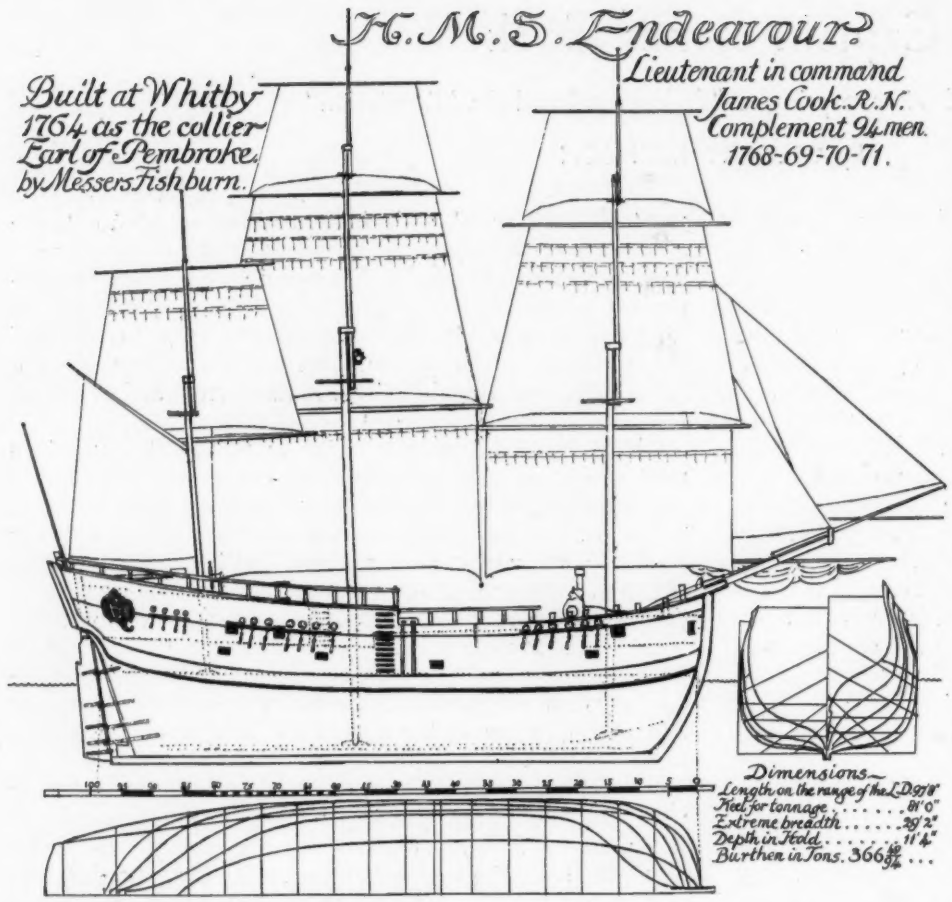
This work was done under the eye of the Admiral and led to appointment as master of the flagship where he found time to study higher mathematics and the principles underlying practical surveying, thereby fitting himself for duties beyond those of an ordinary sailing master. Opportunity came quickly. When the war ceased, the Governor of Newfoundland asked for and obtained his services as "King's Surveyor" and the next four years were devoted to a complete survey of the island and its approaches. Considering the great difficulties under which the task was carried out, the charts are remarkable in their accuracy. In 1767, the man who but twelve years before had come in through the hawse-pipes, who had already proved himself a man of iron resolution, had the pleasure of hearing that the results of some of his astronomical observations had been laid before the polite and learned Royal Society. A rare compound of a man was James Cook.

About the time he was finishing the North American work, the Royal Society was asking the Admiralty to fit out a vessel with the intention of observing the transit of Venus at Tahiti. The Admiralty had sent two expeditions recently to the Pacific whose main purpose had been the discovery of a great southern continent always believed to exist for the purpose of holding this world of ours right end up. There being so much land in the Northern Hemisphere, it was argued that there must be corresponding land in the south — an early example, perhaps, of belief in the efficacy of outside ballast. Commanded by gallant naval captains, the ships had returned with sadly reduced crews, the survivors weakened with scurvy, no news of the continent, and generally with meager scientific results. Lord Hawke at the Admiralty was pressed, in any new expedition, to give the command to a scientist, who was nominated. The First Lord agreed that a scientist was needed but insisted that he must be a seaman too. Hawke had his eye on one man — James Cook. In those days the masters in the Navy held their posts by warrant; it was necessary, therefore, to give Cook a commission as lieutenant before he could take command. There was never a happier choice made.

With good sense, the choice of vessels was left to the man who was to do the work and the one-time collier's boy chose a collier. When she was brought to drydock at Deptford, we may imagine she came as something of a shock to the government shipwrights. They were used to ships with cod's heads and mackerel's tails; Cook's fancy had a bow like a hammer-headed shark and a tail that did not begin much before it was time to leave off. Plainly, so far as mold went, she was in direct descent from the dugout. As for her looks, it will be seen from the plan that she had need to comfort herself with the old saw, "Handsome is as handsome does."

Apart from Cook's natural faith in the type in which he had spent his youth, the qualities which made the collier preferable to the alternative twenty-gun ship were a larger hold and a greater loftiness between decks where the men were to be berthed. Within the 97 feet which was her length between perpendiculars, he intended to stow eighteen months' provisions and to keep in health 94 people. Time out of mind that scourge of seamen, scurvy, had brought to nought much endeavor at sea; in his *Endeavour* — so they had named his ship — he was determined that disease should be fought with all available forces. Fresh air, light and cleanliness below, fresh food whenever obtainable, otherwise the best known substitutes — these were the weapons which the better medical brains of the day recommended to him for the fight, so that extra stowage for a barrel of lemon juice or a cask of sauerkraut, and an extra cubic foot of air space, seemed to him more than worth while.

The details of the *Endeavour's* voyage and the two succeeding voyages in the *Resolution* have been told over and over again; here it would be useless to attempt anything more than a brief summary. Briefly, then, the *Endeavour* was to


H.M.S. Endeavour
Built at Whitby
1764 as the collier
Earl of Pembroke
by Messers Fishburn.
Lieutenant in command
James Cook. R.N.
Complement 94 men.
1768-69-70-71.
Dimensions—
Length on the range of the L.D. 97' 8"
Keel for tonnage . . . . . 81' 0"
Extreme breadth . . . . . 29' 2"
Depth in Hold . . . . . 11' 4"
Burthen in Tons. 366 40/94 . . .

make first for Tahiti, by way of Cape Horn, for the astronomical work. This done, she was to search for the continent with that gaudy name — Terra Australis Incognita. You can see how, of necessity, a country with such a lengthy appellation would have need to appear large on the maps. On the old globes it sprawled right 'round and poked up as near the equator as 30° S., while New Zealand, which old Tasman had sighted in 1642 and none had seen since, was reckoned a spur of it. If he drew a blank in the hunt south from Tahiti, Cook was to make for New Zealand. As a matter of fact, he was convinced by deduction when he had penetrated 600 leagues into the Pacific that there was no land of consequence to the southward; nevertheless, he struck south before standing to the westward in pursuance of orders and out of politeness, we may suppose, for other people's theories.

New Zealand was sighted about halfway up the east coast of North Island. After making a short hitch south to a headland he called Cape Turnagain, he stood to the northward, charting and landing where he could. Battling round Cape Maria van Diemen, in weather which he admitted was as bad as any he had ever experienced, he yet fixed the Cape's position accurately before turning south along the west coast, where, in a succession of westerly gales, the little collier clawed along the dead lee shore. The chart is evidence of the Captain's daring; his journal makes clear how that daring was finely balanced with prudence. He and his men had been tried to the limit and it must have been a great relief when what appeared to be a great bay opened out to receive them.

Landing, not long after the ship was made snug in a cove, and climbing a hill, Cook discovered they had fallen into the strait which now bears his name. Later, passing through, he stood north as far as Cape Turnagain, at sight of which he called all his officers on deck and pointed it out to them. Then, being assured that they recognized it and were satisfied that there had been complete circumnavigation, he turned away to sail around South Island without landing until he came again into the strait. Bad weather prevented him often from closing the land; he mistook Bank's Peninsula for an island and failed to separate Stewart Island, but he left in both chart and journal indication of all uncertainties. In all his work he modestly claimed no more than that it was the best he could do under the circumstances, warning seamen of possible errors. Yet, in spite of his having no chronometer on this first voyage, his longitudes are rarely more than a few miles out, and in the case of New Zealand the chart is a wonderful approximation.

After New Zealand, the orders gave a free hand and Cook decided to pick up another of Tasman's loose ends. That great Dutch pioneer had sighted Tasmania on his passage east. Cook stood away west, therefore, sighting the north end of it and turning northerly to pick up the Australian coast at a point he named Cape Howe. Here began his second great survey; the 2000-mile coast which no white man had ever seen before was charted within four months.

When one looks at the chart of the Queensland coast one is amazed that the little ship came through the tangle of reefs, passing where ships have never cared to navigate since. Cook prudently moved in daylight only, but one bright moonlight night, being tempted to carry on, he found himself hard and fast on a reef near the point feelingly named Cape Tribulation. The ship was badly holed; guns, ballast and stores were flung overboard, lightening her fifty tons, topmasts struck, and anchors laid out. Everything was done which a prime seaman with a fine ship's company working under him could do. For twenty-four hours all were striving; then, as the tide rose, the ship righted. The pumps were going, the leak was gaining on them. There was the chance of a change in the weather with the certainty of the ship breaking up if she remained; there was no certainty that she would float if she came off. The *Endeavour* was just a lone ship lying aground twenty miles from an unknown coast. "However, I resolved to risk all and heave her off." So Cook writes in his simple account of the affair. With alternate hopes and fears, they covered the distance to the shore to find a haven where they beached her, and in six weeks she was repaired in a rough and ready manner. One more close call, this time outside the Barrier Reef, and then away she went through Torres Strait for Batavia.

Hitherto, Monkhouse and Perry, the surgeons, with their captain always behind them, had kept the men in health; but now, while the ship was hove down and repairing, the men, who were all living ashore, contracted dysentery. Many were buried in Batavia, Monkhouse among them; those who returned to carry the ship home were the ghosts of themselves and many passed away on the passage to the Cape.

The *Endeavour's* circumnavigation brought a full harvest. If the vision of Terra Australis Incognita had faded out for most sensible people, New Holland and New Zealand had been raised clear of the mist and become realities. Many new islands had been discovered in the Pacific and all had been well charted. Cook summarized in his journal the work yet to be done and a paraphrase of this summary became his

(*Continued on page 84*)

Converting a 12-Foot Row Boat

By

HAZEN VAN PELT

MANY young skippers have spent time and money converting their row boats into sail boats. Too often the job has turned out badly due to lack of information on the way to make the proper change. Let me give the novice a clear-cut procedure for converting a 12-foot row boat.

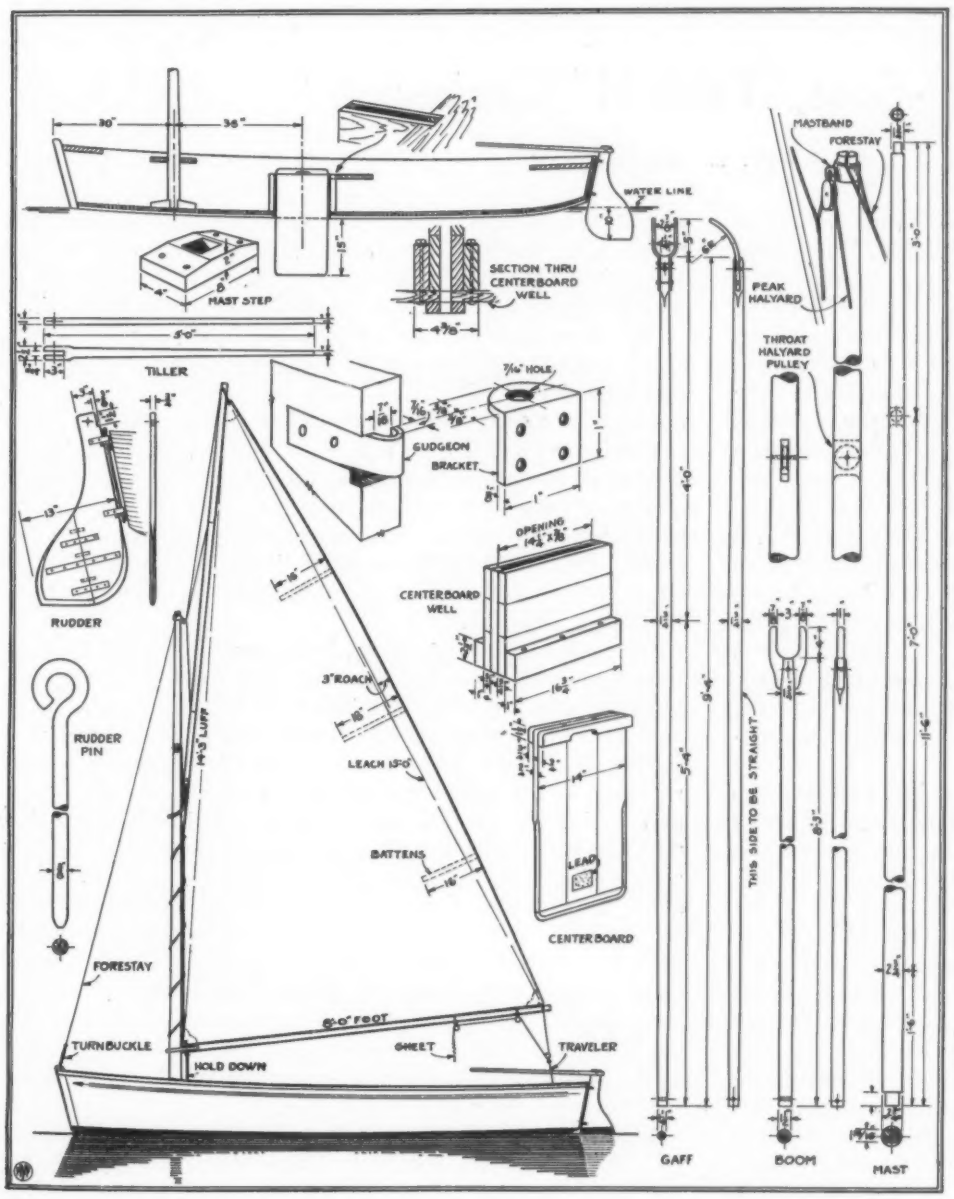
The illustration in the upper left hand corner shows the proper location of the mast from the bow. The 30″ dimension is measured from the forward face of the stem to the center of the mast hole. If there is no thwart at this point, one in the boat will have to be moved forward or one provided. It should be placed high on the sides of the boat and centered on the 30″ line. Cut a 2¾″ hole for the mast in the center of the thwart.

The position of the mast in relation to the position of the centerboard will give a slight weather helm. This is desirable as it will bring the boat up into the wind should anything happen to the skipper.

In case the experienced skipper wants a more evenly balanced boat, he must make provisions, in the thwart and mast step, for moving the mast forward. This can be done by moving the thwart and mast step forward to the required position and refastening them. A better way is to have a rectangular hole in the mast step with bolt or pin holes for the different settings, also an oblong hole in the thwart with a snugly fitting collar which can be bolted or screwed to the thwart where desired. Six inches, at least, should be allowed for shifting the mast.

Set the mast by dropping it through the hole in the thwart and into the step. When the mast is square to the water line, fasten the step to the boat with brass screws. A removable brass pin or bolt should be inserted through the mast step to prevent the mast from jumping out.

Shrouds are unnecessary on the short mast. If a Marconi sail with a 16½-foot pole mast is used, shrouds should be fitted from four feet below the head to a point 6″ abaft the center line of the mast. Shrouds and forestay should be fitted with galvanized turnbuckles.

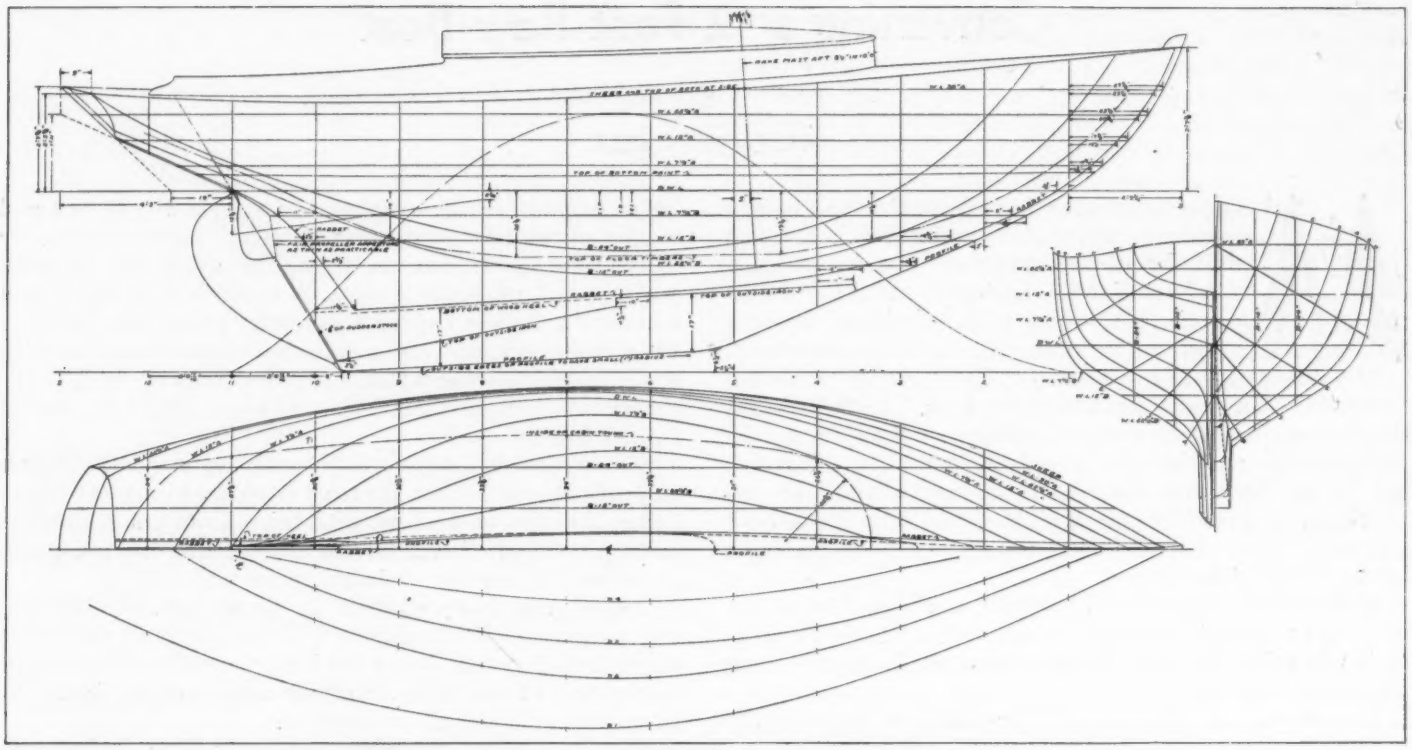


From the center line of the mast hole, measure back 36″. This gives the center of the centerboard well opening. Measure 7⅛″ forward of and abaft this line, and cut a hole 14¼″ by ⅞″ through the bottom of the boat. Renail the ends of all planks adjoining this opening.

Over this opening set the centerboard well. Plane off the bottom of the well until it fits perfectly on the bottom of the boat. If there is a keel, it will have to be built out to 4⅜″ wide by 16¾″ long alongside of the well. After the well has been fitted and set in place, drop the six ⅜″ brass carriage bolts through the holes in the side logs and hammer lightly. Remove the well and bore ⅜″ holes through the bottom at these points. Drive the bolts through from the outside. Where the well meets the bottom, lay wicking and white lead. Drop the well down over the bolts, put washers under the nuts, and tighten. When carefully done, this makes a strong, watertight job. The well need not come any higher than the center thwart. It must be fastened to the center thwart or some other cross member for rigidity.

The centerboard is made of ¾″ oak with the forward, after, and bottom edges of the submerged area beveled. It is made with two top cleats, with hand-holds, and one bottom cleat. In place of the bottom cleat, a piece of bar iron or brass 14″ by ¾″ by ½″ can be used; otherwise, a few pounds of lead can be run into a hole in the board. The hole should have brass nails driven into its sides to keep the lead from falling out after it sets. The

(*Continued on page 88*)



The lines indicate an easily driven hull with good deadrise and moderate ends

A 21-Foot "Tabloid" Cruiser

By RALPH E. WINSLOW

IN PREPARING this design there were several objects I hoped to attain. These were to produce a craft that would be extremely easy to handle, one that could be sailed single-handed in any reasonable condition of weather, fast enough to make sailing a pleasure, with some chance of being near the top in races for cruising types of yachts and, at the same time, an excellent sea boat. She would have comfortable accommodations for cruising for extended periods with two or three persons and have plenty of storage space for food, personal effects and boat gear, and also a flexible cabin plan so that for an occasional week-end trip up to five persons could be accommodated. Moderate initial building cost was desired, but more particularly a craft whose operating expenses would be low, one in which the owner could do all the work without making it burdensome. Also, one on which a small tender could be carried on top of the cabin trunk. A stylish, snappy, modern design was desired.

At first I thought of designing a yawl, but realizing the rather poor windward qualities of the rig and the multiplicity of spars and rigging, I decided to use a Marconi knockabout all inboard cutter rig. The water line length I have held to a little less than 21 feet as I think that is about the upper limit of length for a really easily handled single-hander, and also the minimum size allowing accommodations for five.

Overhangs of sufficient length so that an all inboard rig could be used were decided upon; no bowsprit and bobstay were wanted. The dimensions as finally worked out were 27′ 10″ length over all, 20′ 9″ water line, 8′ 0″ beam, and 4′ 6″ draft. The displacement is about 9,300 pounds and there will be 3,400 pounds of outside iron ballast with 600 to 800 pounds of inside trimming ballast. Freeboards are: Bow, 3′ 7″; least, 2′ 2″; stern, 2′ 5″. The overhang at the bow is 2′ 10″, and at the stern, 4′ 3″; these are sufficient to give reasonable reserve buoyancy and prevent "hobby horse" action in a chop, while the after overhang is long enough to permit a permanent backstay being fastened to the hull.

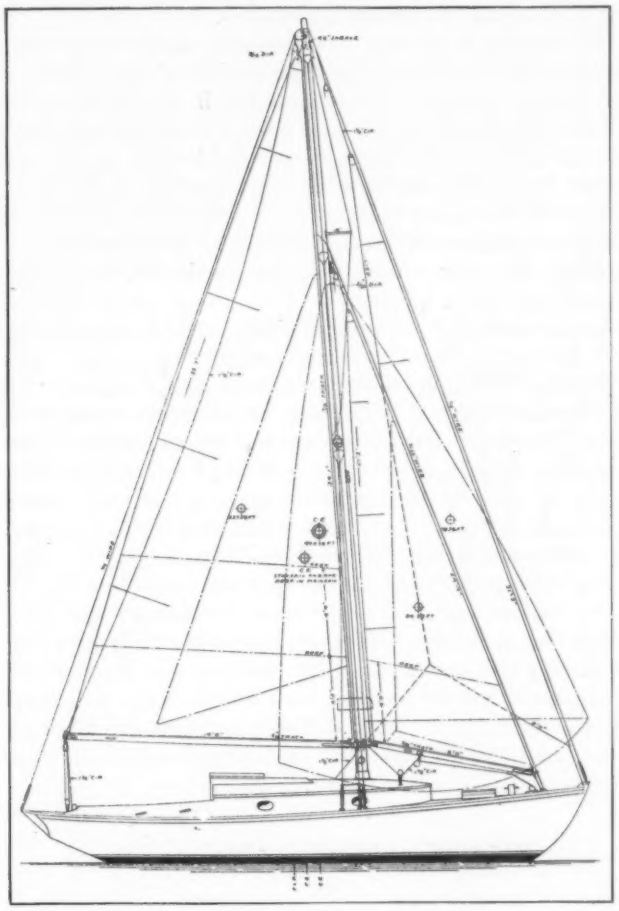
The lines show an easily driven hull with good deadrise, sharp but well balanced ends, a reasonable amount of forefoot, straight keel bottom for easy beaching or docking, long buttock lines which indicate probable ability to attain speed and still have a hull with sufficient interior capacity to make it possible to obtain a roomy cabin. The garboard is square, except aft, where it was necessary to make "S" sections to get room for the motor. This model is slightly less costly and gives a little more wetted surface, but has a more effective lateral plane and somewhat more stability than one with full "S" garboards.

On account of its strength, lower cost and more freedom from damage if grounded, iron has been used for the outside ballast instead of lead. The iron runs the full length of the keel bottom, giving excellent protection. The rig is simplicity itself and has practically all the handiness of a yawl with the virtue of being much faster for the same sail area and having the sail all inboard. She will lie well at anchor with the mainsail set, sail well under all three sails, balance with a single-reefed mainsail and whole forestaysail (when she then becomes a knockabout). She will also balance under two-reefed mainsail and reefed or small forestaysail. It is probable that in most strong summer winds she will always be able to carry the forestaysail and a single-reefed mainsail. In addition, there is a trysail for use if a two-reefed mainsail is not desired. The small forestaysail may also be hooked on to the backstay, and sheeted forward if it ever becomes necessary to heave to with a sea anchor.

Sail areas are: Mainsail, 237 sq. ft.; forestaysail, 84 sq. ft.; jib, 79 sq. ft.; total, 400 sq. ft. There is also a spinnaker for use when running before the wind, as this is the only cir-

cumstance when the cutter rig is inefficient, the headsails being mostly becalmed. The spars will be of Sitka spruce. The mast will be hollow, of a flattened oval shape, about one-third more in its fore and aft dimension than athwartships, so as to get the necessary stiffness to make those nuisances, preventer backstays, unnecessary. A permanent backstay is fastened directly to the hull. The cabin trunk is quite long, but excellently braced at the mast, so that I anticipate no difficulties with trunk leaks.

The main boom is high enough from the deck to allow



The total sail area is 400 square feet

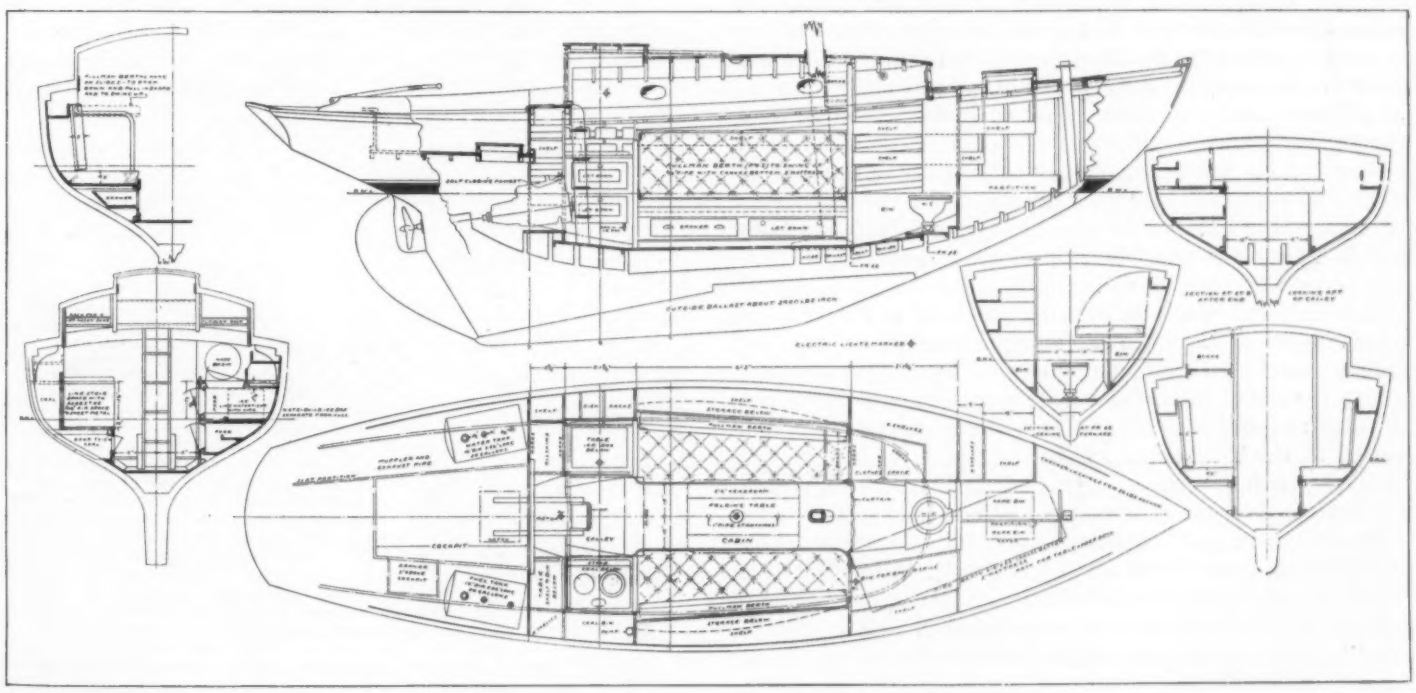
sitting headroom of 3′ 6″ at the cockpit and space for stowing a 7-foot square-ended tender on top of the cabin trunk abaft the mast. The cockpit has over 6 feet of available sitting room and is, of course, watertight and self-bailing.

Below deck, in the cabin, there is 5′ 6″ headroom, and in the galley, under the slide, 5′ 10″ headroom. The galley slide is the entire width of the galley, so that it provides excellent ventilation when open. The galley is aft. To starboard is space for a coal stove with a 15½″ by 22″ top, with coal bin behind and below, or a two-burner pressure Primus or alcohol stove, in gimbals; also a dresser table. To port is a good sized galley dresser and ice box, with an oilskin locker below the bridge deck, also dish racks, tumbler and mason jar racks, and many storage shelves. Amidships is the main cabin with two transom berths, two pullman berths, and numerous drawers, shelves, lockers and a book rack, dining table, etc. Forward are a large clothes locker, storage bin for bags, two rope bins, shelves for lanterns, boat gear, etc., the water closet, and a third pipe or pullman berth. These pipe or pullman berths may be installed or removed in about five minutes so that the accommodations may be arranged for from one to five persons, as desired. The berths in the cabin, when lowered, make excellent back rests with storage spaces behind. Forward, is a good sized fore peak for spare gear.

The motor is a 12 hp. 4-cylinder, with electric starter and generator, located under the bridge deck and the forward end of the cockpit. It is accessible and may be boxed over if desired. This engine will give a speed of better than six miles.

On either side of the cockpit are tin-lined copper tanks of twenty gallons capacity each, one for water (with gravity flow to the galley), and one for motor fuel. Abaft the cockpit is a good sized storage space below the after deck. The construction is strong, but not cumbersomely heavy — keel, 5½″ by 10″; frames, 1⅜″ by 1⅜″, 9″ centers; deck beams, molded, 2″; cabin trunk, 1⅛″ thick; deck $\frac{13}{16}$″ thick, canvas covered. These specifications assure a boat strong enough not to strain under any conditions in which she may be sailed.

I have endeavored to produce a roomy, practical craft, with a minimum of doors and with well ventilated, capacious storage space. The knockabout cutter rig was selected because of the various combinations of sails that can be used and the absence of a bobstay to chafe anchor and mooring ropes, as well as for its simplicity, speed and ease of handling.



The cabin may be arranged to accommodate five

Tacking to Leeward

A Graphic Method of Determining Gain or Loss on Various Courses

By ROBERT M. POTTER

ONE OF THE greatest "battles" which takes place on board racing yachts concerns the question of tacking to leeward. After listening to a variety of arguments *pro* and *con*, I determined to work out the speed factors involved in leeward tacks and to record them in a manner suitable for practical use. The result is the combination of arcs, radii and intersecting lines here shown. For practical application, a modern marine speedometer is, of course, essential for determining rates.

Let us consider the theory involved in sailing leeward tacks. Running dead before the wind seems to be a slower point of sailing than reaching with the wind more on the quarter. This may be due to a number of factors, a few of which will be discussed later. But we shall assume that, under certain conditions, a considerable increase in speed can be attained by sailing a more quartering course. However, this course alteration, besides increasing the speed, also increases the distance to be sailed and involves jibing over to get back on the base course. Whether this maneuver is advantageous or not depends entirely upon whether the increased speed more than offsets the increased distance. Our problem, then, resolves itself into determining how fast the boat would have to be sailed on the new course to equal the position which would have been attained on the old course. Then, if any increase of speed is found over that (by reading the speedometer), there is profit.

There are various ways of determining this equivalent rate. If the original course is considered as one side of a right triangle, the new course as the hypotenuse, and a line perpendicular to the original course, connecting it to the hypotenuse, as the third side, then the length of the hypotenuse (the new course) is a function of the angle it makes with the original course. By simple trigonometry, knowing the length of the original course and the angle of the new course, the hypotenuse may be calculated. This method of calculation may then be applied to the various angles and lengths of course. However, because we are dealing with equivalents — we want to arrive at the same place at the same time — the factor of time may be disregarded. In that event the rates and distances are proportionate for each course and we may consider our various courses in terms of rates rather than distances. This method involves calculating a number of points and plotting them on a graph. The resulting curves are regular; but unless they are cut to each 1/10th of a knot (or mile), they are difficult to interpolate and the setup is an inconvenient one to handle.

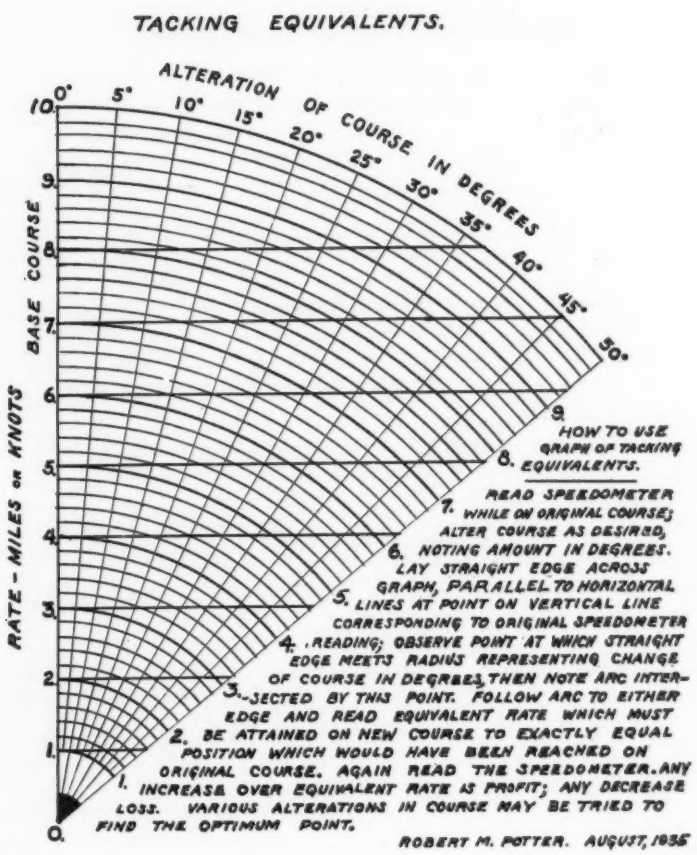
Another method which is more practical is the graphic determination as shown in the figure. The right triangles of the aforementioned method are present but, instead of calculating the various increases in rate due to change in course, the rates are extended as arcs and the necessary increases read off at the intersections with the arcs.

In this graph, the radius representing 0° is the original or base course; the new course may be any other of the radii, which are spaced in 5° divisions; the third side is formed by the horizontal lines which are perpendicular to the 0° radius and cut across the other radii. These are spaced only at one-knot (or mile) intervals. Any point between may be established by laying a straight edge parallel to these lines at the proper point on the vertical line. The rates are represented in arcs cutting the radii. When the straight edge is in place and the proper radius determined by the course alteration is noted, then the arc intersected at that point represents the equivalent rate which must be sailed to equal exactly the progress along the original course.

This makes a convenient method, more accurate and graphic than the other. The relationship of the old and new courses may be visualized on the graph. It should be noted that the divergence of the new course from the original one makes no difference; it is compensated in the determination because by coming over on the opposite tack one is brought back to the base line and the same conditions for rate hold equally on either tack. For purposes of calculation and graphing, the new course may be considered as being entirely on one tack.

The advisability of tacking down wind depends upon many factors, such as wind and sea conditions, and type of hull or rig. With no positive means of determination, weighing these factors is a point of contention, as already mentioned. However, without provoking too much discussion, I should like to venture two generalities. First, the possibility of gain by tacking to leeward is greater for schooners and ketches than for sloops, cutters and yawls. In the case of schooners and ketches, the whole sail plan may be brought to bear by taking the wind on the quarter while this condition is achieved for the other types when the wind is further aft. Second, this possibility of gain is better for all types of boats in a sloppy sea and light wind, because the motion of the boat tends to throw the wind out of the sails and there is little steadying effect from the canvas when dead before it. It should be remembered that in sailing dead before heavier

(*Continued on page 85*)


TACKING EQUIVALENTS.
ALTERATION OF COURSE IN DEGREES
0° 5° 10° 15° 20° 25° 30° 35° 40° 45° 50°
BASE COURSE
RATE - MILES OR KNOTS
10 9 8 7 6 5 4 3 2 1 0
HOW TO USE GRAPH OF TACKING EQUIVALENTS.
1. READ SPEEDOMETER WHILE ON ORIGINAL COURSE; ALTER COURSE AS DESIRED, NOTING AMOUNT IN DEGREES.
2. LAY STRAIGHT EDGE ACROSS GRAPH, PARALLEL TO HORIZONTAL LINES AT POINT ON VERTICAL LINE CORRESPONDING TO ORIGINAL SPEEDOMETER READING; OBSERVE POINT AT WHICH STRAIGHT EDGE MEETS RADIUS REPRESENTING CHANGE OF COURSE IN DEGREES, THEN NOTE ARC INTERSECTED BY THIS POINT. FOLLOW ARC TO EITHER EDGE AND READ EQUIVALENT RATE WHICH MUST BE ATTAINED ON NEW COURSE TO EXACTLY EQUAL POSITION WHICH WOULD HAVE BEEN REACHED ON ORIGINAL COURSE. AGAIN READ THE SPEEDOMETER. ANY INCREASE OVER EQUIVALENT RATE IS PROFIT; ANY DECREASE LOSS. VARIOUS ALTERATIONS IN COURSE MAY BE TRIED TO FIND THE OPTIMUM POINT.
ROBERT M. POTTER. AUGUST, 1935

Taking Her South in December

Part II—From Cape May to Norfolk, Inside

By E. F. HANKS

WHEN I had my first look outside Sunday morning the weather was a disappointment. The sky was overcast and rain was not far off. The wind was fluky, the barometer unsteady. We decided to run up the Delaware River and through the canal.

Having filled up with gasoline and refilled our water jugs, we let go at 10:30 a.m. and proceeded seaward. A light rain fell during the hours of dodging in and out between the shoals and, though the temperature was about 40°, it was uncomfortable while steering. However, there were enough of us to relieve the wheel at short intervals, there was hot coffee on the range, and a warm cabin to duck into.

A strong ebb was running and it seemed an endless time before we were abeam of Fourteen Foot Ledge, but we came up on it at last. Then it stopped raining and everyone felt better.

During our run up-river we continued to steer courses in the main ship channel, altering them only after a bearing of the mark ahead showed us to have been set off by the current. Such changes in course were slight, never more than a quarter of a point. At 4:13 p.m. Ship John Shoal was abeam and we set the running lights. Soon the magnificent lights of the Liston Range were visible and we brought them in line off Arnold Point Shoal.

Darkness had fallen; it was overcast and the moon had not yet risen. 'Twas as black as the inside of your hat. Approaching the turn off Reedy Island dyke, a confusing array of lights presented themselves to the northward. A strange port at night is confusing to the oldest hand, but there is one positive solution — the corrected compass course. Rounding a mark and swinging into the new course, the lights arrange themselves in order.

The flood was making and our speed over the ground increased. Swinging off toward the canal jetties at Reedy Point, a generous allowance for set must be made on the flood. The current is very strong here where it sweeps on Pea Patch Shoal. At 6:28 p.m. we entered the Chesapeake and Delaware Canal and were hailed from the north jetty when well within. Docking is not required but vessels must stop upon being hailed.

The moon had risen and gave some light through the clouds but, as we had no searchlight, we felt our way along between the banks with caution. No difficulty was experienced with the bridges, which are all of the vertical-lift type and well lighted. Passing through the last bridge, in Chesapeake City, we made fast to a dock which belongs to a general store. Here one can procure gasoline, ice, water, coal, meat, vegetables and groceries. There is also a bar! No charge is made for wharfage or fresh water.

Monday broke overcast, but the wind was light NW, promising to freshen, with the falling glass, as the day wore on. This day marked our first week of living aboard *Puffin II*.

Provisions, ice, water and gasoline aboard, we let go at 8:45 a.m., and headed down Back Creek toward Chesapeake Bay. In the creek we met ice. It was detached and thin, but this stuff can cut a wooden hull at the water line and we dodged it whenever we could. When we entered the Elk River we left the ice astern and were not troubled with it again.

Once clear of Turkey Point, and in the Chesapeake, we got sail on her. The breeze was moderate NW.

With sails set, waiting for a breeze, "Puffin" chugged along under power

After rounding the bell buoy off Worton Point we laid a direct course for Sandy Point. We had decided to keep on through the night which would enable us to arrive in Norfolk the following morning. This made a lookout necessary, so we kept two men on deck and one below. The man at the wheel could swap with the lookout at intervals but it meant four hours on deck and two below.

By sunset the breeze had freshened and we took in the mizzen to make steering easier. It was a glorious, sharp night. The breeze freshened, and by midnight, with Smith Point abeam and miles of open water astern, we were sliding down before the seas and bringing up with our bows in the air at what seemed, at the moment, a terrific speed and then a dead stop.

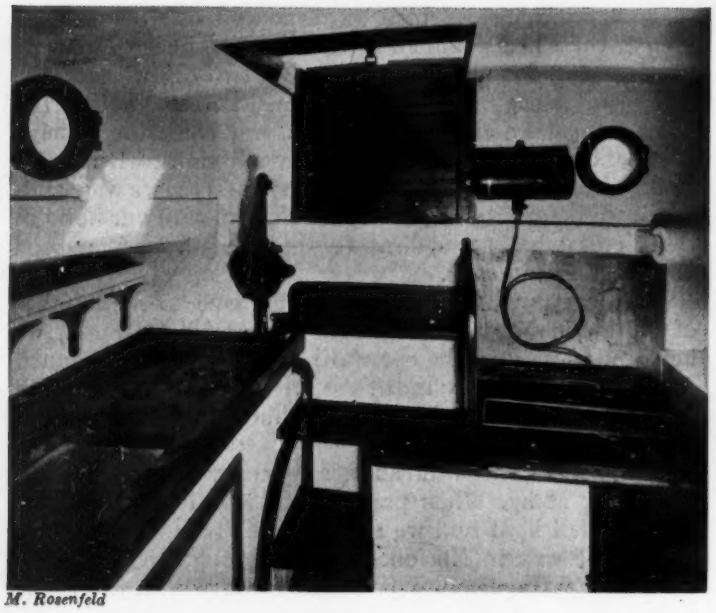
Wolf Trap was abeam at 3:40 a.m. Due to the number of unlighted buoys surrounding the Middle Ground, we held on, passing to the eastward of the dredged channel. At seven o'clock we rounded the fairway buoy off the Tail of the Horseshoe, hauled up for Thimble Shoals, and set the mizzen.

At daybreak, with wind and sea abeam, we were rolling and staggering along. When passing through Hampton Roads the wind fell light and we took in sail. It was a delightful run all the way to Norfolk. Passing through the draw, we entered the Hague, that peaceful haven within a harbor, and docked at 9:30 a.m., on December 18th.

The 32-Foot Auxiliary Cruiser "Galley Bird"

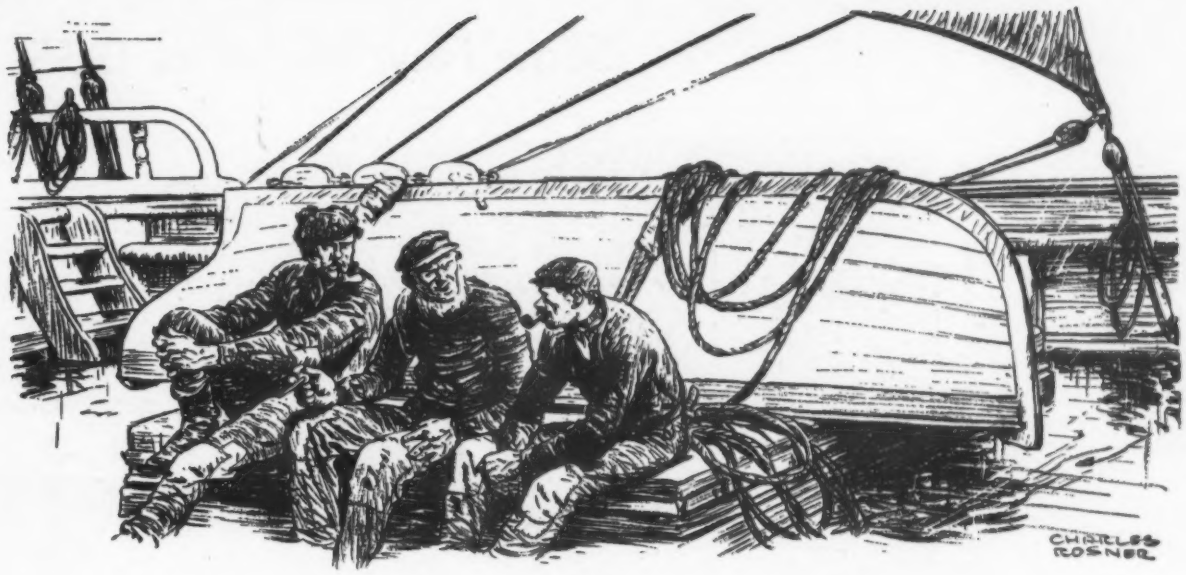
"Galley Bird" was designed and built by Stanton G. Tiffany and is owned by George A. Oppen. She has four berths, two in the cabin and two in the stateroom forward, and ample lockers. Her sail area is moderate and the bulwarks give a feeling of security

The principal dimensions are: Length over all, 32 feet; beam, 12 feet; draft, 4 feet 9 inches; sail area, 580 square feet. A 10 hp. Millers motor drives her at eight miles per hour



M. Rosenfeld

The main cabin has headroom of 5 feet 9 inches and a wide floor. The lockers under the settees are zinc lined and are watertight. The galley (left) is aft. It is equipped with alcohol pressure stove and has the usual fittings



Under the Lee of the Longboat

By "SPUN YARN"

ALL hands were relieved to learn that Erling Tambs arrived in his *Sandefjord* at Nevlunghavn, Norway, after a passage of 54 days from Newport. He writes that he passed through the center of the hurricane of August 24th — the one that nearly did for the *Vema* and that caused the abandonment of *La Dahama* — and had a stormy passage all the way. But he got there, which is more than many of us had dared to hope he would.

Not to get too preachy on the subject of hazards at sea, I'd nevertheless like to mention that *Stormy Weather's* happy knack of avoiding hurricanes shouldn't blind small boat sailors to the fact that August and September are liable to be villainous months in the North Atlantic.

As I write these words the 34-foot spoon-bowed yawl *Jean*, twenty-two years old and of uncertain parentage, lies in the North River waiting to shove off for a modest little single-handed cruise around Cape Horn, etc. The owner, J. Barton Scattergood, hasn't done a great deal of deep sea sailing, although he used to own a night club. He has an advance agent who told me that the trip down the Hudson River from Albany was unsatisfactory, the *Jean* having "ripped a balloon and a mizzen" and finished under power. The agent assured me that Captain Scattergood wouldn't be happy until he got to sea where he could forget the motor and set all sail. Well, that's lovely.

At Oyster Bay there's another old yawl, the *Isis*, which has been on the beach for four years, but which is about to sail for Florida. Memo to the Coast Guard. If you pick up the *Jean* off Hatteras don't fail to look for the *Isis*, and *vice versa*.

The last time this public-spirited page tipped off the Coast Guard was in June when the demand was made that the life saving station at Eatons Neck, L. I., be reopened. Exactly thirty days later the station resumed operations with a crew of ten men and three boats. Within a week they rescued from a sinking row boat seven persons who had abandoned a burning yacht in the middle of Long Island Sound. Since then the station has participated in more than fifty other rescues. The "Lee of the Longboat" doesn't claim *all* the credit for this restitution of a meritorious service, but it does hope that the sixty-odd who might have drowned have all renewed their subscriptions for YACHTING.

Incidentally, the Government is on the point of erecting new buildings at Eatons Neck and increasing the personnel to forty men. The station will be equipped with radio and enough floating equipment to make it useful to all Sound shipping between New York and New London. This is public money spent in the right direction. I understand, however, that the $100,000 motor life boat put in service last summer at Sandy Hook hasn't been so hot. It was, frankly, an experiment, and experiments in connection with it are still under way.

It isn't as if we hadn't already evolved motor life boats that are highly satisfactory. One of the famous old Holmes 40-footers rescued Rufus Burnham and me one windy night south of Cape Fear. That was in November, 1912, but I still remember that she looked just about perfect to us.

That, by the way, was when I learned that it's bad dope to put to sea unless you're equipped for everything. Other months besides November in which dat old debbil sea will get you if you don't watch out are those between December and October, inclusive.

I wrote a little item recently which the Old Man cut out because it had a political tinge. He said to go back to the country I came from if I didn't like the way this one is being run. So I hope you and he will realize that the following story is only meant to be funny, without political significance. It seems that when the aforementioned *La Dahama* was sighted after the hurricane a certain passenger on the Italian liner *Rex* was among the first to note that her ensign was reversed. He rushed to the bridge and said to the captain, "Don't you see that American yacht out there in distress?"

"I see an American yacht," said the captain, "but what makes you think she's in distress?"

"Why," said the passenger, "her ensign is upside down."

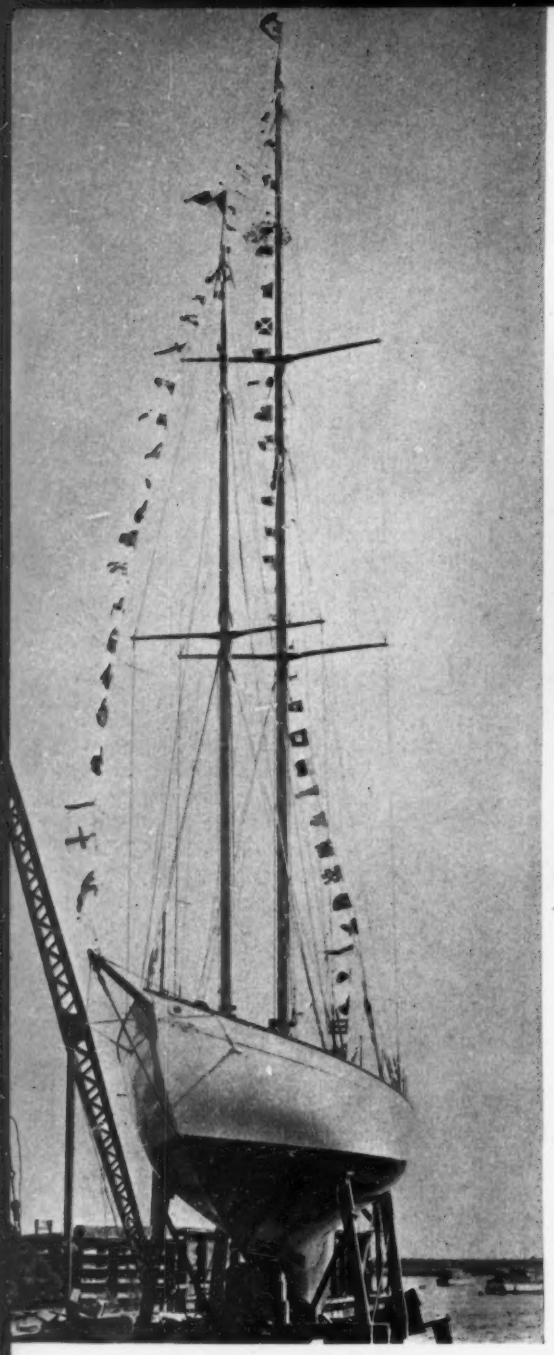
"Why not?" asked the captain. "The whole country's upside down."

Some New Yachts of 1935

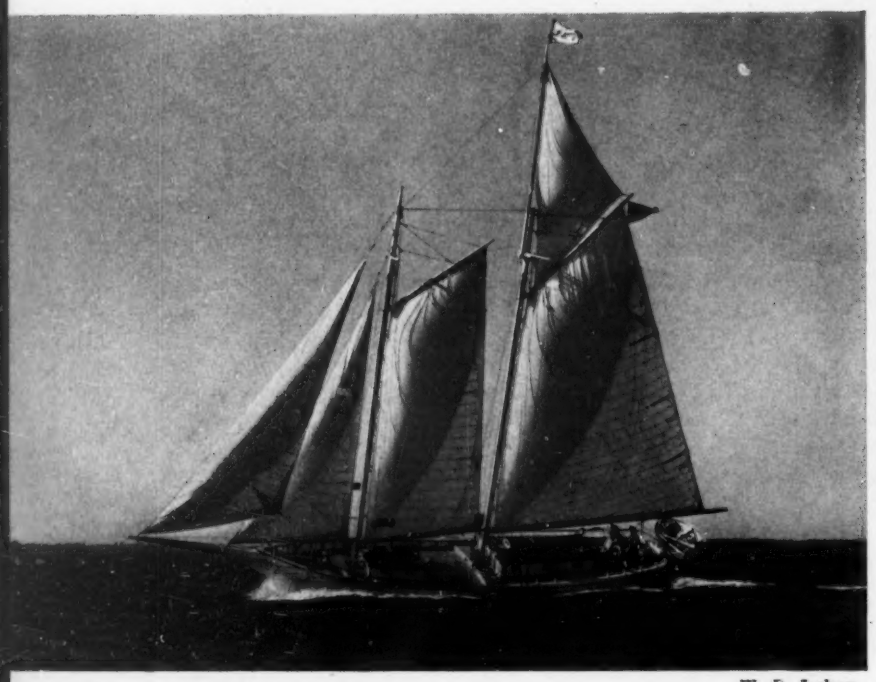
"Vavite II" is a 39-foot Sport Play Boat designed and built by the Consolidated Shipbuilding Corporation for W. Schuyler Pate

Left. "Free Lance," a 39-foot auxiliary cutter owned by Edward Lehak, of New York. She was designed by Francis Sweisguth and built by the New York Yacht, Launch & Engine Co. Her engine is a Lycoming

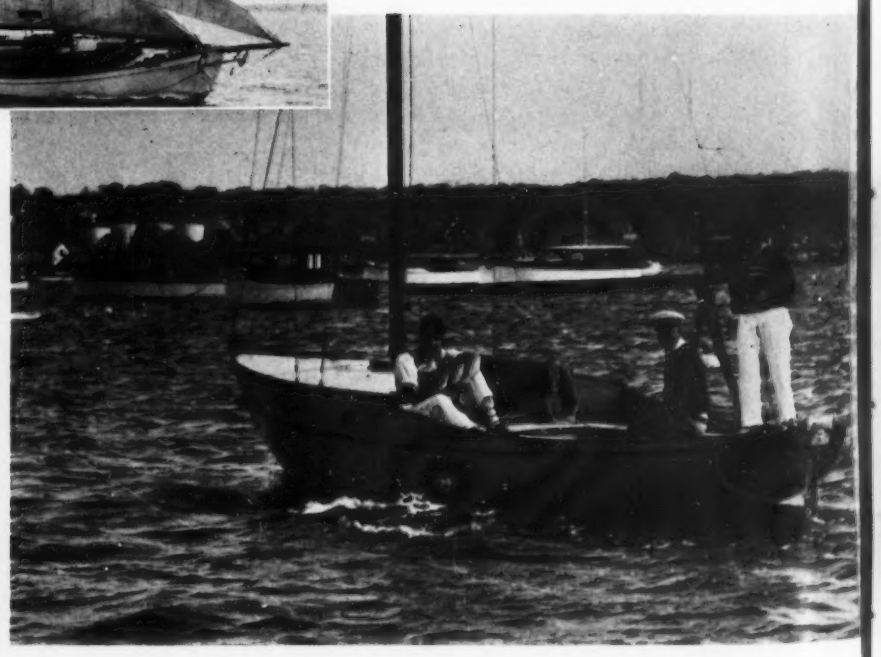
Below. "Leif" is one of the Viking Class, 24 feet over all and 18 feet 7 inches water line. Charles D. Mower designed the first boat for Vivian Burnett, of New York. Her plans were published in the February issue



"Santana," a 55-foot auxiliary built at Wilmington, Cal., for W. L. Stewart, Jr., of Los Angeles, from designs by Sparkman & Stephens, Inc. Her plans appeared in the May issue

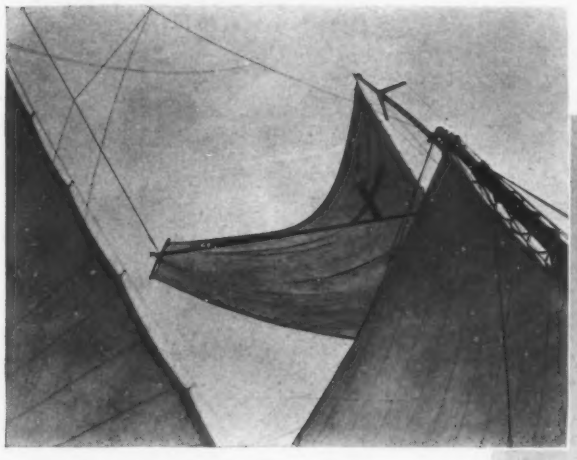


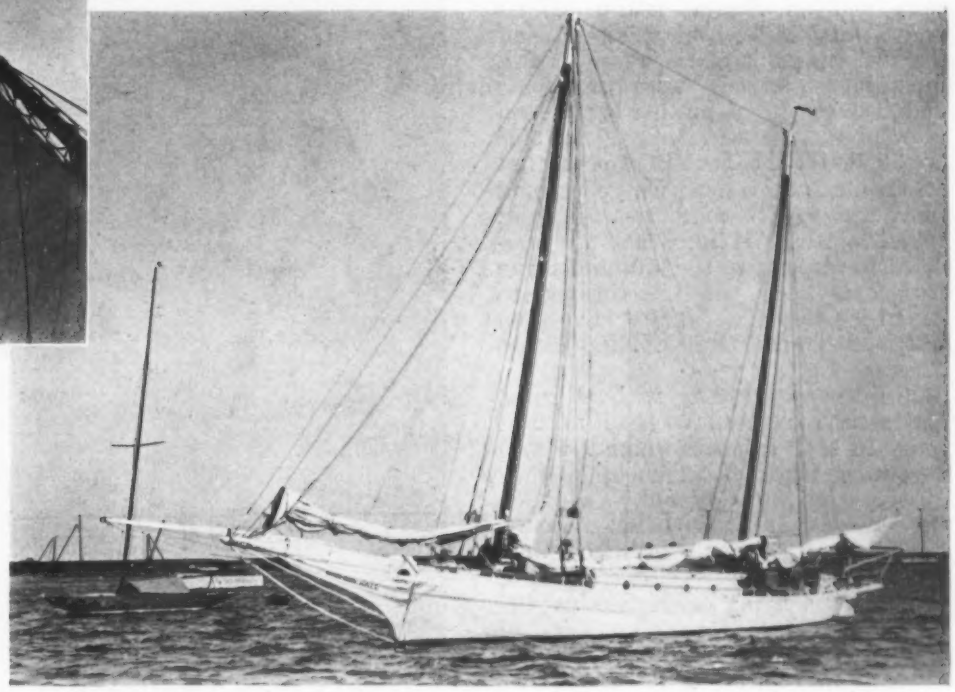
W B. Jackson



Left. "Coaster III" in a stiff nor'wester. She is a cruising schooner 41 feet over all, owned by her designer, Murray G. Peterson, of Marblehead. She was built by Pendleton, of Wiscasset, Maine, and her engine is a 16 hp. Lathrop

The Month in Yachting





"Smith Brown Jones" in port with illegal buoy-spearing device on her bowsprit. (Left) The "Bee's" log canoe topsail embodied every feature except a self-hoisting protest flag

The Last Battle of the Oyster Wars

A. D. 1935 was an off year in yacht racing until Henry duPont Baldwin, owner of the bugeye *Bee*, alleged to Linton Rigg and Edward Janeway, owners of the bugeye *Smith Brown Jones*, that the *Bee* was the fastest ex-oysterman in the world or anywhere else. Rigg and Janeway, ever quick to take offense at real or fancied slights to their ex-oyster war battleship, accepted a challenge for a race and thereby hauled the dying year into the dazzling prominence of glory. October 26th was named as the day of the contest; Baltimore Light, off Gibson Island, was designated the starting point, and all that remained thereafter was to gather the clans and borrow the sails to make this the greatest event in the annals of Chesapeake Bay.

Rarely have two boats been better matched for a fight to the death. The *Bee* in her younger days, fifty or sixty years ago, was the fastest oyster fisherman on the Bay. The *Brown Smith Jones*, as people call her who know no more than to read the name on her bow, was built in the early Nineties by the Conservation Commission of Maryland, and had to be fast to catch the Virginia oyster poachers. Either or both of these whirlwinds could work up to a speed of seven knots without half trying. When they did try it was a different story. Both are 68 or 70 feet on deck to a beam of 17 or 18 feet and a draft of 5 or 6 feet.

Boy, was it a yacht race! That the *Bee* is the fastest bugeye on the Chesapeake was admitted by everybody before, during, and after the event. It was just our hard luck that our hospitable owner and his crew of Southern gentlemen admitted to our circle a Yankee traitor whose name shall be treated with the silence that his ignominious treachery deserves. This damned Yank, who journeyed down to Gibson Island with a smile on his face and guile in his heart, announced that as an act of magnanimity he was doing a "Jerry Lambert" and loaning a sail to the *Bee's* competitor. He stated that the sail was twenty years old and no good anyhow. Upon hearing this statement Henry Baldwin, a gentleman of the old school, chivalrously declared that the moral effect of being gracious to an inferior opponent would elevate the yacht race to unprecedented heights of grandeur.

But what the Yankee traitor didn't tell his trusting host was that the sail was none other than the famous *Hotspur* balloon jib, the only one of its genus that pulls like a Navy dive-bomber on the wind, off the wind, and on a dead run — the sail that made the *Resolute*, the *Haswell*, the *Filatonga*, the *Pinta*, and the *Hotspur* the greatest five yachts of all time.

So to get on with the story (remaining reading time three minutes). The talent aboard the *Bee* was something to knock your eye out. We had Dick Randall, who annually sweeps the Bay with his Eight-Metre *Loke*, and Larry Bailliere, whose *Aweigh* won the Miami-Nassau race last winter, and Caulk Kemp, who holds the log canoe championship of the Chesapeake, and Skipper Stone, who was born in Charleston and so has no more use for a Yankee traitor than any other loyal Southerner, and Bill Thompson, and I don't know who-all to make up a crew of thirteen. We had everybody but the cook, which son of the *Bee* missed the ferry and sent his regrets by phone.

On the *Smith Brown Jones* most of the crew of nineteen were turncoat Revenue men or motor boatmen like George Townsend, Peter Powel, cruising champion of the Riviera, Rigg and Two Brothers, Brewster Jennings, and Edward Janeway, and they certainly needed the *Hotspur* balloon jib to make their doddering old bucket go.

The start was set for 2:10 p.m. of the 26th, and at 2:09 as both boats reached for the line in an 8-knot northwesterly, *Bee's* balloon jib pulled out the swivel at the head, and we almost lost the race right there. The *Brown Smith Jones*, favored with unmerited luck, crossed the line three seconds after the gun, everybody on board as proud as Punch, and stole the lead. Furiously the crew of the *Bee* hauled the ballooner (ex-spinnaker) out of the water and drilled holes in the headboard to fit the rag for use on a sail boat. Nobody worked harder in this pursuit than the Yankee traitor who stood by with a camera; but anyone watching him closely could have seen that his eye was on the *Smith Brown Jones* and that up her foremast was creeping the *Hotspur* balloon jib, head down and lashed to a spar that raised it fifteen feet above the masthead.

Now the *Bee's* ballooner was reset and we began to overhaul our hated rival. Now we set the *Loke's* spinnaker as a mizzen staysail and practically wiped out the distance between us and the fine-feathered *Smith Brown Hotspur*. And now a galvanized hook at the foot of our ballooner snapped off and we were in the soup again.

But were we downhearted? In came the tattered ballooner and up went a smaller one, followed by a topsail, a fearful contrivance with sprit and club borrowed from a log canoe and set on a jackstay running to the head of a slender spar perilously improvised at our foremast head. At once the *Bee* made land on the *Smith Brown Jones*, and if we hadn't at this time had an altercation between The Man and Bally Bail-

liere as to whether a line of fish nets had to be weathered or not, we'd have taken the lead and kept it to the finish.

Afternoon faded into evening, and we converged on Sharps Island lighted buoy, thirty miles from the start, and the turning point of the race. At this juncture, so closely were the boats matched, the *Bee* minus her big balloon jib, and the *Smith Hotspur Jones* plus her big inverted balloon jib topsail, that we claimed an overlap. We yelled, and they, having six more in the crew, yelled louder. We luffed and they refused to respond to the luff, and if the race had been sailed according to America's Cup rules, they'd have been disqualified under Rule XXX, just as *Rainbow* was last year.

But we were sailing without rules, like gentlemen, and we had to bear away to keep from drowning nineteen miserable offenders. Thereupon they nipped us at the buoy and we came on the wind astern of them for the close fetch home. Once again we almost won. Before the start our haughty competitor had rigged a flying jibboom ostensibly for the purpose of setting an oversized and therefore illegal balloon jib, but actually for spearing buoys in the dark and cutting them adrift so that we wouldn't know what course to sail. This bit of trickery nearly undid them, for the first buoy they caught in their bowsprit shrouds was a nun too virtuous to be cut adrift, and while they were standing on it and cavalierly pushing it down we overtook them.

At that anxious moment, however, our topmast carried away with a mighty crash. This left us without a signal halliard from which to fly a protest flag, and by the time Bill Thompson had cleared away the wreckage aloft, our race committee, meeting in the galley, had decided that it was no longer "promptly," and as an act of sportsmanship we conceded the race.

As a matter of dismal fact the *Smith Brown Rainbow* took the race by twenty minutes, finishing the 61-mile course at 1:55 a.m. in a little less than twelve hours at an average speed of between 5 and 14 knots. We came along twenty minutes later without resorting to our motor, which was out of commission, and took a very handsome second place without prize money.

The afternoon of the same day at an oyster party given by Leo Flanagan, Rigg and Janeway were presented with the Flanagan silver trophy, emblematic of the slow motion championship of the Bay. The only fly in the ointment of this elegant proceeding was the announcement by the donor that the trophy had cost him $1 down and that the winners had to pay $8 a week for one year to retain possession. Hearing this, the winners immediately challenged for another race to be sailed next year without the *Hotspur* balloon jib. So passed into immortality the greatest yacht race in the history of Chesapeake Bay.

A. F. L.

H. Marth

Two of the new Rochester 14-foot International dinghies, "R.I.P." and "Tartar." At New London, in October, two of the class sailed against the Larchmont "B's"

Frostbiting at Essex

WITH forty dinghies competing in six different classes, the Essex Yacht Club sailed its Fall Regatta over the week-end of November 9th–11th. To competitors the racing had all the earmarks of frostbiting because of the chill east wind that "bucked" an outgoing tide on Sunday and caused plenty of dunkings.

The Roosevelt Trophy for "A" boats went to Mrs. Helen Hill with a total of 44 points, closely pressed by Hervey L. Stockder.

The Essex Yacht Club Trophy, presented to the winner in both Spring and Fall Regattas, was carried off by J. S. Sutphen, Jr., in Class B. In the one-design B Class William J. Griffin won.

The ten-footers, Class D, are fast becoming popular and seven turned out at Essex, with Edward Cabot carrying off first honors.

Three 14-foot International Class boats brought from Rochester for the October regatta at New London were held over, and Mr. George Ford in *R. I. P.* was awarded first prize. At the New London meet a two-boat team of these 14-footers was beaten by the Larchmont "B's," 10 to 9¼ points, when *Gadget* withdrew after a foul.

Since last year a new class has been developed known as Class X. These boats have a Class A hull rigged with a jointed fishpole mast and loose-footed sail. Eleven of these boats put on a hot battle with Walter Rowe pulling out a win with 85 points against 73 for George H. Hart.

HAROLD A. PRESTON

Marblehead Championship Standings

ONCE again the North Shore port of Marblehead provided the yachtsmen with excellent sport during 1935, a season featured by close, hard racing and the continued rise to prominence of younger skippers.

Ray Hunt's *Hornet* annexed her second straight championship in Class Q this season in very handy fashion, and the doubters could offer no excuses as *Robin* was back in the fold and Charlie Adams had *Bat* in the racing. The latter did some damage to Hunt's fine record during a stretch of late season light weather, but she was far from threatening *Hornet's* championship.

Harry Noyes' *Gypsy* was again the outstanding Eight-Metre, but Stanley Deland got more speed out of *Egret* than she has shown since coming East of Cape Cod. From mid-season on, this light weather boat won the largest number of races of any contestant in the class and she became the first Eight-Metre to win the Chowder Race.

Class R was revived at Marblehead this season with six boats racing and the championship again went to the new generation. Despite the handicap of a heavy weather performer at Marblehead, John and Charles Noble sailed *Stranger* to the championship of the class. The reverse was true in the "Thirties" as the veteran Harry Bloomfield, with *Brilliant*, took the championship away from Lincoln Davis, Jr.'s, *Starling* in a class where the younger element predominates.

The standing of the leaders in the Eastern Yacht Club open, the Corin-

thian, and the Marblehead, season championships, by classes, follows.

CLASS Q, 25-RATING

Yacht	Owner	Eastern	Corinthian	Season
Hornet	C. Raymond Hunt	.858	.745	.802
Bat	Charles Francis Adams	.632	.670	.645
Cara Mia	Harold S. Wheelock	.553	.671*	.627
Falcon	John S. Lawrence	.595	.606	.622
Lively Lady	M. W. Greenough	.644	.385	.514
Venturer	Albert W. Finlay	.431	.5161	.483
Robin	Chandler Hovey	.372	.5163	.435
Spindle	Edwin W. Preston	.306	.326	.313
Taygeta	Joseph V. Santry	.346	.278	.300

INTERNATIONAL EIGHT-METRE CLASS

Gypsy	Harry E. Noyes	.750	.796	.783
Ellen	Charles P. Curtis	.583	.550*	.561
Armida	William T. Aldrich	.583	.359	.463
Egret	Bryd and Deland	.500	.417	.436

CLASS R, 20-RATING

Stranger	Noble Brothers	.867	.850	.798
Mary	Charles G. Moody	.722	.593	.610
Shrew	R. Stedman Hood	.472	.400	.403
Mojola	Mrs. Frances Carter	——	.315	.301
Popinjay	Jacob D. Cox	——	.204	.268
Bonnie Prince	James L. Stuart	——	.167	.213

THIRTY-SQUARE-METRE CLASS

(15 Competitors)

Brilliant	Harry N. Bloomfield	.838	.971	.886
Skjold VII	George Poor	.812	.722	.765
Starling	Lincoln Davis, Jr.	.525	.667	.686
Michi V	Alfred E. Chase	.607	.635	.607
Essex III	Arthur W. Stevens	.350	.343	.383
Oriole	Frank J. Mather 3rd	.445	.275	.353
Lill-Singva	I. Rosenlund	.160	.206	.345
Bacardi	Ernest B. Dane, Jr.	.470	.415	.338
Valiant	J. T. Connolly, Jr.	.117	.246	.327
Bacchant	Jesse W. Morton	.398	.284	.317

HERRESHOFF CLASS S

(13 Competitors)

Gale	Brown Brothers	.761	.726	.734
Woodcock	Arthur P. Poor	.669	.801	.722
Venture	Nancy Leiter	.522	.671	.612
Dixit II	Richard W. Pierce	.576	.578	.593
Volante II	F. E. Winslow	.698	.398	.462

TRIANGLE CLASS

(6 Competitors)

Teaser IV	R. Russell Smith	.758	.909	.844
Vagus	William T. Haley	.725	.723	.752
Marianette	R. S. Bushnell	.525	.500	.474
Avanti	Marjorie Saltonstall	.600	.396	.430

MARBLEHEAD-BUZZARDS BAY CLASS KNOCKABOUTS

(11 Competitors)

Evanthia	E. Sohier Welch	.882	.828	.874
Navigo	Alden, Cynthia & William Haskell	.676	.700	.711
Comet	P. H. and W. G. Jones	.680	.627	.651
Jackanapes III	Eric Shepard	.610	.663	.618
Chinook	Walter Bell	.496	.612	.543

* Won club championship.

CLASS T, 14-FOOTERS

(7 Competitors)

Yacht	Owner	Eastern	Corinthian	Season
Formosa	Ives and Seamans	.933	.899	.867
Tango	Janet Pierce	.573	.642	.650
Small Fry	Bud Boutwell	.778	.496	.636

BRUTAL BEAST CLASS

First Division

Bounding Clam	Pike Noyes	.733	.667	.722
American Boy	Albert W. Clay	.667	.517	.627
Red Pepper	Robert Smith	.567	.758	.625

Second Division

Black Bird	Susanne & Joseph Santry, 2nd	.917	.867	.885
Pokey	Mary and George Stephenson, Jr.	.691	.786	.742

Third Division

Dawich	Daniel Pinkham, Jr.	.667	.698	.706
Tippo	Susan Smith & Phyllis Burkart	.569	.747	.682
Good News	John O'Day	.656	.591	.639
Zebra	Paul Ricker	.677	.610	.630
Sea Bat	Jean McBeath	.526	.678	.584
Taulog II	Frank Ferdinand	.541	.499	.521
Black Cat	Barnet Gring	.598	.489	.515

Fourth Division

Barbette	Barbara Connolly	.900	.938	.914
Zig Zag	Peter Connolly	.513	.602	.564
Snap	Walter Friend, Jr.	.553	.337	.416

LEONARD M. FOWLE

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Yacht Racing Association of Long Island Sound

THE ANNUAL championship standings of the Yacht Racing Association of Long Island Sound for 1935 have been announced by Ernest Stavey, Corresponding Secretary. To qualify for a championship, a yacht is required to start in at least twelve scheduled races. The table gives the number of starts made by each yacht and her percentage.

TWELVE-METRE CLASS

	Starts	Per Cent.
Cantitoe	15	.787
Seven Seas	10	.685
Mouette	16	.625

HANDICAP CLASS. DIV. A

Spartan	9	.705
Varuna	15	.659
Edlu	8	.593
Katherine	6	.538
Pollyanna	12	.725
Hawk	8	.476

N. Y. Y. C. 30-FOOT CLASS

Oriole	19	.844
Variant	12	.666

SIX-METRE CLASS

No boats qualified

HANDICAP CLASS. DIV. III

Cricket	15	.714

HANDICAP CLASS. DIV. IV

Nike	12	.766

WEE SCOT CLASS

Sunshine	12	.870
Wee Budlet	11	.801

INTERCLUB CLASS

Kenboy	20	.874
Barbara	18	.771
Nancy	20	.676
Alberta	18	.674
Aileen	14	.672
Boxo	12	.607
Ariel	21	.602
Jester	20	.575
Susan	22	.565
Wild Cat	20	.479
Jick	12	.428
Fiamma	16	.385
Wahini	17	.293
Shorty III	12	.278

ATLANTIC CLASS

Ranee	15	.780
Patty	19	.750
Nereid	12	.724
Marianna	12	.661
Bobkat	14	.658
Rumour	13	.657
Orva	14	.607
New Deal	22	.593
Hera	18	.473

SNIPE CLASS

No boats qualified

VICTORY CLASS

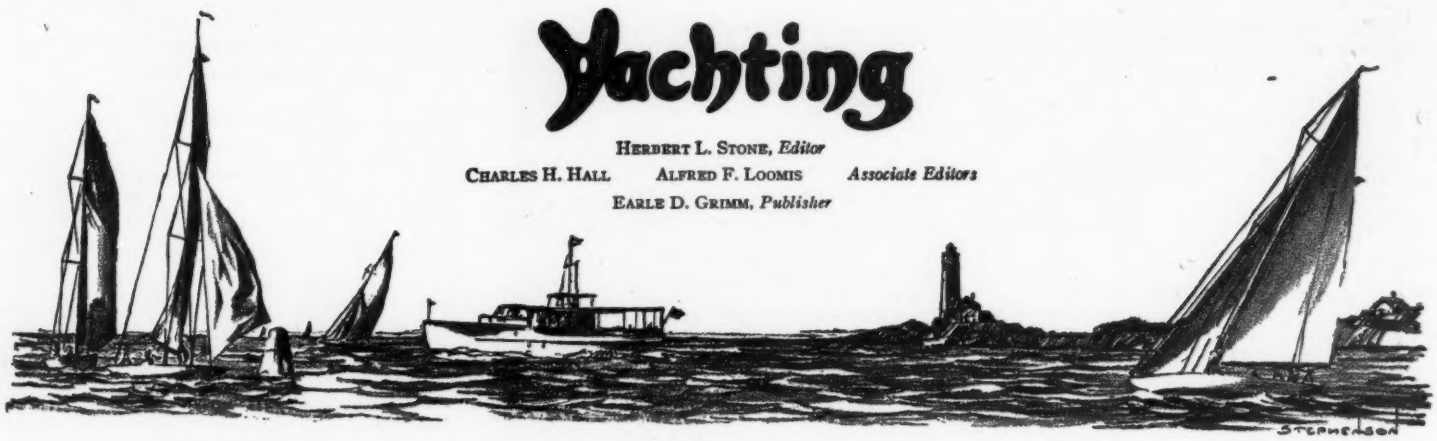
Reveille	18	.757
Black Jack	21	.739
Blue Jacket	16	.733
Flapper	21	.700
Gopher	19	.687
Avanti	16	.475
Nike	12	.411
Whisper	13	.323

STAR CLASS

Jubilee	16	.878
Grey Flash	15	.622
Lazy Bones	13	.591
Miga	13	.573
Ghost	13	.403

Zak-Lownsberg & Associates

"Gemini" leading "Fram" in the Jackson Park Yacht Club Star race off Chicago. Both have too much wind



EDITORIAL

In Memory of the Ames Brothers

THE recent action of the Student Council of Harvard University in establishing an annual scholarship in memory of the two Ames brothers who lost their lives last summer during the ocean race to Norway in an attempt to save their father, Robert R. Ames, when he was swept overboard in mid-ocean from the ketch *Hamrah*, strikes us as a particularly fitting tribute to an heroic act. As a token of the appreciation of a group of fellow students of the courage, sacrifice and character of two of their number, the memorial could hardly have taken a more appropriate form.

The scholarship carries with it a substantial monetary award to be made annually, to both junior and senior students, "who have shown energy in helping themselves and have exhibited as well the sterling character and inspiring leadership that were the qualities of Richard and Henry Ames." The award marks, we understand, the first time in the history of the university that the Student Council itself has established a specific scholarship fund. Both brothers were prominent in student activities while at college. Richard, the elder, graduated in 1934, and was a former president of the Student Council. The younger Ames, Henry, of the class of '38, had just completed his first year.

It is fitting that this last chapter of the grim tragedy of last June should be written by those who knew and worked with the two youths who lost their lives on the *Hamrah*.

\+ + +

A Real Motor Boat Racing Class

WE'VE seen racing classes, both in the sailing and the power branches of the sport, come and go. Usually they are born with high hopes, flourish for a few years if carefully nurtured, and then die a natural or a premature death. The length of life of the average racing class is, perhaps, shorter in the power boat than in the sailing field, chiefly because the development of both hulls and motors has been more rapid in the former, and greater speeds have been possible of achievement from year to year with the same power, or rather the same cylinder volume. But this year we have witnessed the coming of age of a little class of hydroplanes that seems destined to go places, and that for the possibilities of sheer sport seems to offer more for the size and cost than anything heretofore evolved — not forgetting the "151's" of recent memory.

This class is known as the 225-cubic-inch piston displacement hydroplane class, called the "225's" for brevity's sake. The idea originated with John L. Hacker, speed boat designer, who was convinced that controlling cost through the use of existing stock marine or converted motors in a limited size hull would result in a revival of inboard racing, which has been largely moribund since the development of outboard racing. The past two summers have proved the correctness of his views. In 1934, the first year for the class, thirteen boats were built and raced, and the season just past saw the number grow to more than forty. In every regatta at which the class has raced it proved to be the whole show. The boats provided competition all the way from the starting to the finishing gun — few if any mortalities, close finishes, hair raising turns, all the thrills that properly belong to the game. Restrictions are few, the minimum hull length being 15½ feet and the beam 4½ feet. More than a specified amount cannot be spent for the 4-cylinder 225-cubic-inch engines allowed. And there's the answer in a nutshell. Given speed, reliability, and good competition, with no premium to the man with a fat pocketbook, and you have the makings of a real class. As to speed, 56 miles has been bettered in competition on a five-mile course and 63 has been topped on the straightaway.

No wonder the future of the class looks rosy, with a National Championship Trophy as an incentive to consistent competition.

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The New "Chief Justice"

TEN years ago the North American Yacht Racing Union was formed. Its object, according to its constitution, is "To encourage and promote the racing of sailing yachts and to unify the rules." Its president for the first ten years of its existence has been Clifford D. Mallory, who has worked long and hard to place the organization in the enviable position which it occupies today. Now Commodore Mallory has retired from office and the Union has elected Philip J. Roosevelt to succeed him.

The new president has sailed boats since he was four years old and won his first important trophy at the age of eleven. He headed the Six-Metre committee of the Seawanhaka Corinthian Yacht Club, having charge of the negotiations for international racing in that class, and sailed *Jill* in the team races with the Scandinavian visitors.

He now heads the recognized authority on the interpretation of sailing rules, the final court of appeals to which are brought the questions that have puzzled race committees, the court to which a yachtsman may appeal his case. Much has been done by the Union in its first ten years; much still remains to be done in clarifying and interpreting the rules. In the future there will, perhaps, be few changes made in the rules but they will be interpreted as needed to cover new situations that may arise.

IN THE WORLD OF YACHTING

FREDERICK W. (TED) CONANT

THE name of "Ted" Conant is synonymous with racing to the yachtsmen of the Pacific Coast, particularly those of Southern California, off the ports of which he has been sailing for many years. Yet few of them know how the boy, born Frederick Warren Conant, "learned his trade" and acquired a wizardry of the helm that marks him as one of the foremost racing skippers of the Coast.

"Ted" Conant began his yachting career at the age of ten years with a self-built six-foot punt which he navigated with complete success until he was caught in it one day by his father blithely riding the ocean swells off Santa Barbara Point. So something larger and safer was required and in 1904 he built a 12-foot dinghy and became the ace small boat skipper of Crescent Bay. By the time he was 17 years of age he and Cort Voorhees had acquired and were sailing a 20-foot cat boat, the "Peggy." Shortly after leaving college he served in the World War and did not leave the Army, where he attained the rank of Captain of Engineers, until 1921. In 1922, after twelve years away from sailing, he returned to salt water as skipper of the Nicholson-designed 20-rater "Patricia," recently purchased from Vancouver and brought to Southern California. Earning an enviable reputation in her during the next six seasons, Conant took the helm of Owen Churchill's new Class R "Friendship" to win the championship of the class in 1928. The two following years he sailed the Eight-Metres "Babe" and "Angelita," and then had two successful seasons in the Six-Metre "Lanai." More recently Conant has been sailing Donald W. Douglas's Six-Metre "Gallant," the United States entry at the Tenth Olympic Games, sailed off Los Angeles in 1932, in which series the Swedish "Bissbi," was the winner. In 1934 he sailed "Gallant" into the championship of her class.

"Ted" Conant is a member of the Los Angeles and California Yacht Clubs.

IN THE WIND

MERRY CHRISTMAS to J. Barton Scattergood of Syracuse, N. Y., who is sailing alone around the world in his 34-foot yawl. Contrary to the rule obtaining for most of the solo circumnavigators of the globe, J. Barton has the money as well as the time. He estimates he will be gone a year and a half and he has $2,000 for expenses. Another oddity is that his boat was built in the twentieth, instead of the nineteenth century. J. Barton declares his will be the first "official" voyage of its kind because he registered with U. S. Department of Commerce before shoving off, and planned to have his papers signed by port authorities en route. Some will call J. Barton scatterbrained.

But, anyway, he's the first solo sailor with an advance agent. It was learned on Mr. Scattergood's arrival off the New York Motor Boat Club that Bradford Hutchinson of Buffalo was to precede him wherever possible in this capacity and arrange for his official welcome. . . . Interviewed, Mr. Scattergood said he wouldn't be lonesome on his voyage. . . . "I'll be busy finding my way. It'll be something to talk about when I'm fifty or sixty."

The yawl's name is *Jean* and she looks like something anchored close in at Bayside rather than an ocean cruiser. . . . One Metropolitan journal, after cataloging *Jean's* equipment, related that Mr. Scattergood intended to add "a guard for his coffee pot, a rack for dishes, new cleats, a guide rail and a set of distress rockets." . . . The paper further stated: "Nights he will lash the tiller and go to sleep and does not expect this will take him more than three points off his course." . . . I bet there will be nights when he will lash the coffee pot and had better not go to sleep at the tiller or he will be off his chump. . . .

At this distance, which is pretty remote, the response of the New York Yacht Club to Charles Richard Fairey's challenge for Ye Oulde Muggey sounded to me a bit ambiguous. Something was said about the "growth" of Class J, which must have referred to marine growth because growth in any other sense is impossible to associate with Class J. We've just sent *Enterprise* to the scrap heap, *Weetamoe* is outbuilt, *Yankee* is hauled out on foreign shores. We have *Rainbow* and she's nothing to go mad about, either. . . . Well, the New York Yacht Club Committee at least succeeded in making it plain that they viewed with alarm the contemplated Fairey boat of Class K. . . . The younger crowd are L-bent and their conservative elders are incorrigible J-talkers. So there it is.

Famed American yachts seldom are buried at sea, unless inadvertently. Generally their beautiful bodies are dissected by Louis Lubchansky in a sad backwater of New London harbor, where rotting spiles lean crazily and decrepit landings tremble at the rumbling passage of trains over the nearby trestles. All that is left of *Narada*, most aristocratic steam yacht of her time, is the hull — still unmatched for sheer grace and distinction today — and that will soon lie piecemeal on a junk heap. Schooner *Hildegarde*, which raced *Atlantic* to England thirty-one years ago, is a hollow shell. . . . Latest comer to Lubchansky's Connecticut Yacht Wrecking Corporation was *Enterprise*, proud defender of the America's Cup in 1930. . . . She had cost $700,000 to build and sail for three months. . . . Lubchansky, who used to be a butcher (and, in a sense, still is) hails from Russia and calls himself simply a junk man. . . . His house boasts relics overlooked by America's yachting tycoons when they disposed of their luxurious craft to him for a song — linen, silver, glass, *objets d'art* — "But only once I find any liquor," said Mr. Lubchansky soberly. "And it was only a bottle and a half."

TOAST

Here's to the muffled dinghy crews
Whose week-end feats are always news,
Whose racing form upon the icy
Seas of winter is daring, spicy —
Whose altercations and peaceful Sunday
Battles resound to the Bay of Fundy —
Upsets, foulings and dunkings that
Fire the ire for the yacht club spat.
Here's to the gals who brave the salty
Spray with a technique seldom faulty,
Damned if their charming tactics ain't
Hard on an adversary's paint . . .

Here's to the crews of the Frostbite Fleet
(Who'd rather have me toast their feet!)
— Nina

The marine influence on football is discernible in the block and tackle, as essential to the gridiron as it is to the nautical game. . . .

"I pray as I go" is a good maxim for the lone navigator.

W. S. Gilbert might also have written, "A sailor's wife is not a happy one."

Turn about is fair play . . . I quote from the admirable and ever controversial "Under the Lee of the Longboat" in last month's YACHTING. "Spun Yarn" said, "Yachtsmen have enjoyed a reputation for honesty." . . . I submit that that statement should be qualified by, "Except when loyalty demands that they say of a dear old boat, 'Wa-al, she weeps a little' — instead of — 'She leaks like a sieve!'". . .

Lauderdale Leys of Newport has taken umbrage at the paragraph which appeared in this column in October, anent Newport's "three husky and courageous men" who paddled their canoe out to Brenton Reef Lightvessel. . . . I had called them "fools." . . . Mr. Leys says, in part, "What about the small yacht race that left this summer for Norway? *We* did not call *them* such if they had confidence in their boat and themselves." . . . I had mildly suggested I thought the Coast Guard had enough to do without being required to assume responsibility for ocean-going canoeists. Mr. Leys threatens darkly. . . . "We think that they [the C. G.] will have ample time to take care of you and your friends should you ever take the chance of sailing up this way." When I do, it won't be in a canoe.

A Utopian cruise may develop if fifteen romanticists elect to embark for three months aboard the ship *Seven Seas*, belonging to Inglis M. Uppercu and for the past two years laid up at Miami. The paying guests are to be quartered royally, served by professional stewards, dined and wined as on a luxury liner (according to the verbal prospectus "Stentor" Raymond trumpeted abroad the other day). Whether they help work the ship is optional. . . . They're to be under no compulsion to stand watch. . . . *Seven Seas*, if the venture is undertaken, will cruise lazily through the tropic isles of the blue Caribbean. . . . Ladies invited.

Al Stanford, author of "Men, Fish and Boats," is looking for a few tough lads to accompany him to Bermuda in his wee *Chickadee*. . . . Whisper it not to the Corinthians.

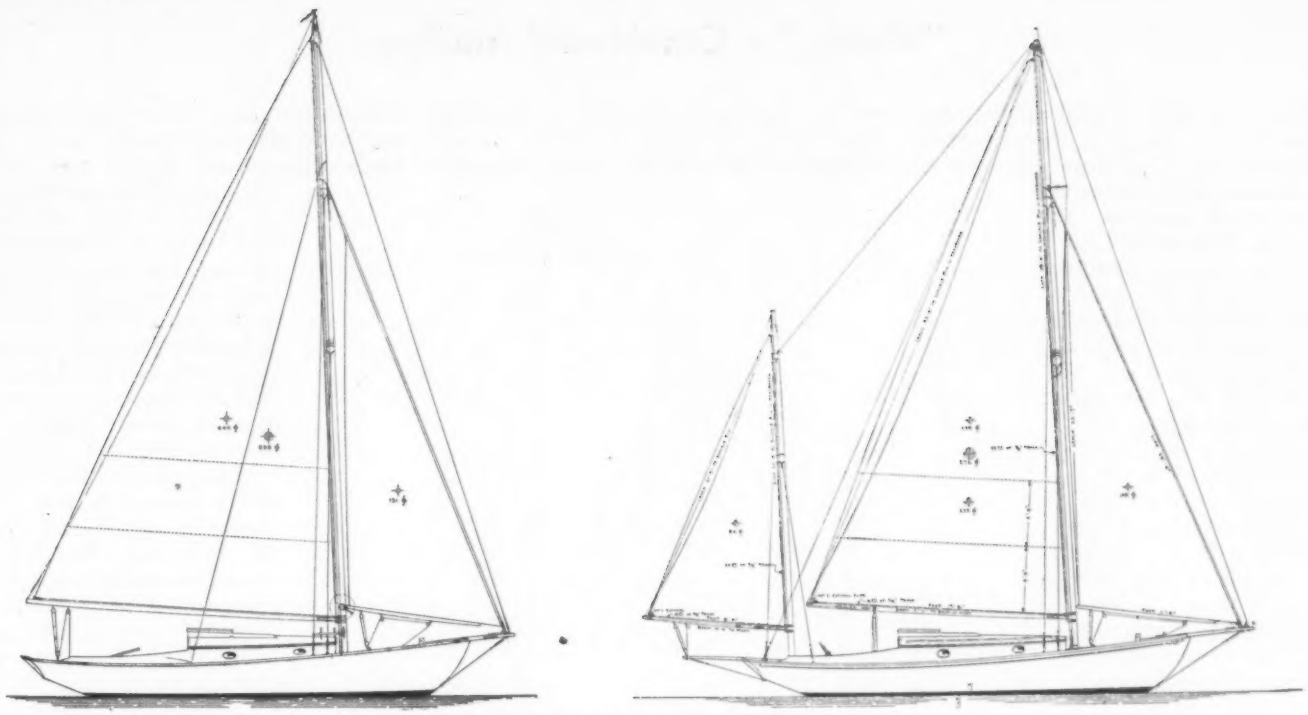
Russia is generally credited with having originated the first ice breaker. . . . The plans, however, were pilfered from an American naval architect.

A subscriber in the South suggests to the Editor that a page in lighter vein be included in the contents of this magazine. . . . The Editor had made the same suggestion to me about two years ago, but apparently nothing came of it. . . .

CAPTAIN KID

Captain Kid has walked the plank. Until further notice *Telltale* will be at the wheel.

EDITOR



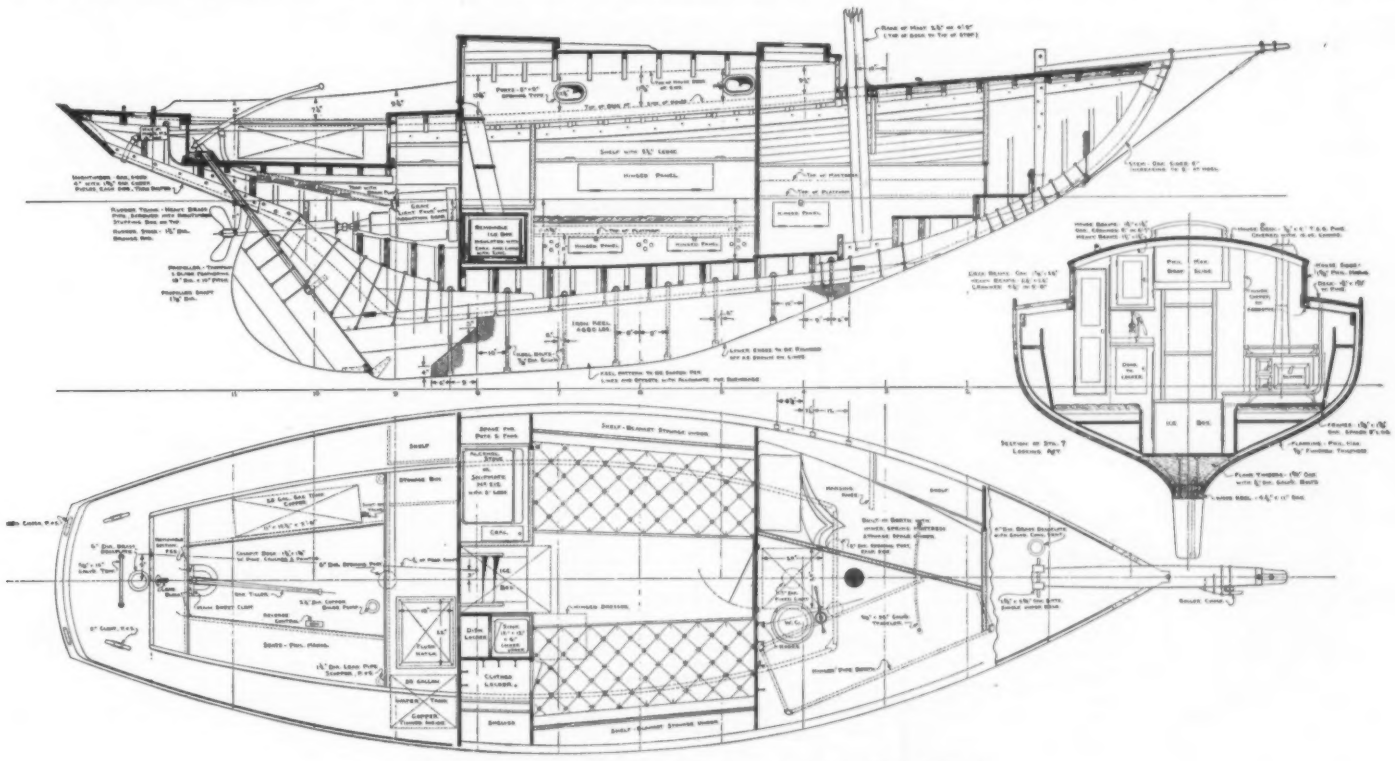
The new standardized auxiliary is offered with either cutter or yawl rig

A New 30-Footer, Sloop or Yawl

HERE ARE the plans of an interesting cruising yacht from the board of John G. Alden. She is 30′ 6″ length over all, 23′ water line, 9′ 9″ beam and 5′ draft. A number of these boats are now under construction and it is probable that the designer will take one of them, rigged as a yawl, for his own use. The model is derived from that of the *Malabar, Jr.*, a 30-footer which was developed as a standardized design with both sloop and yawl rig. The rig of the new design may be either sloop or yawl at the owner's option. The sail area of the sloop rig is 535 square feet and that of the yawl is 572.

There is 5′ 10″ headroom in the cabin which is laid out with two full-length berths with shelves outboard. The after part of the cabin is given up to the galley, with Shipmate range, sink, ice box, dresser, dish racks, etc. Forward is another built-in berth and a toilet. A pipe berth may be installed in this room.

The power plant, a Gray "Light Four" driving the propeller direct, is installed under the bridge deck in a separate compartment. A 25-gallon copper gasoline tank is under the cockpit seat on the port side and a 35-gallon water tank under the bridge deck. A two-blade Thompson feathering propeller is set off center on the port side.



The accommodation plan of the new cruisers is well worked out

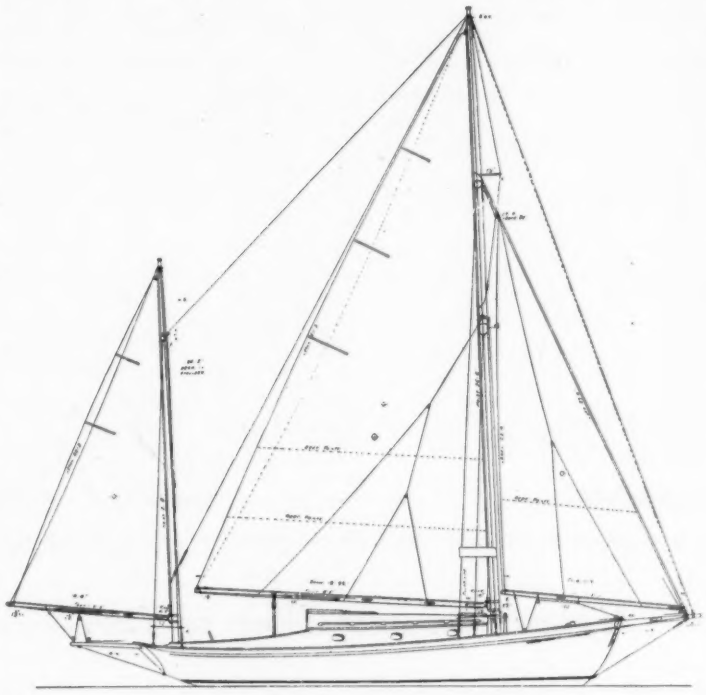
The plans reproduced in this section are the property of the designers under whose names they appear. For further information concerning any design address the naval architect in question.

"Victory," a Centerboard Auxiliary

THE YACHT whose plans are shown on this page was designed by Charles G. MacGregor, associated with Belknap & Paine, naval architects of Boston, for Robert L. Nelson of Cleveland, Ohio. She is now under construction at the yard of George Gulliford of Saugus, Mass., and is rapidly approaching completion.

Victory, as the new yacht has been named, is 31′ 0″ in length over all, 24′ 6″ on the water line, 10′ 6″ extreme beam and 3′ 6″ draft of hull. With the centerboard down, her draft is 6′ 0″. There is 4200 pounds of lead on the keel and some trimming ballast inside. Construction is high grade and all fastenings are of Tobin bronze.

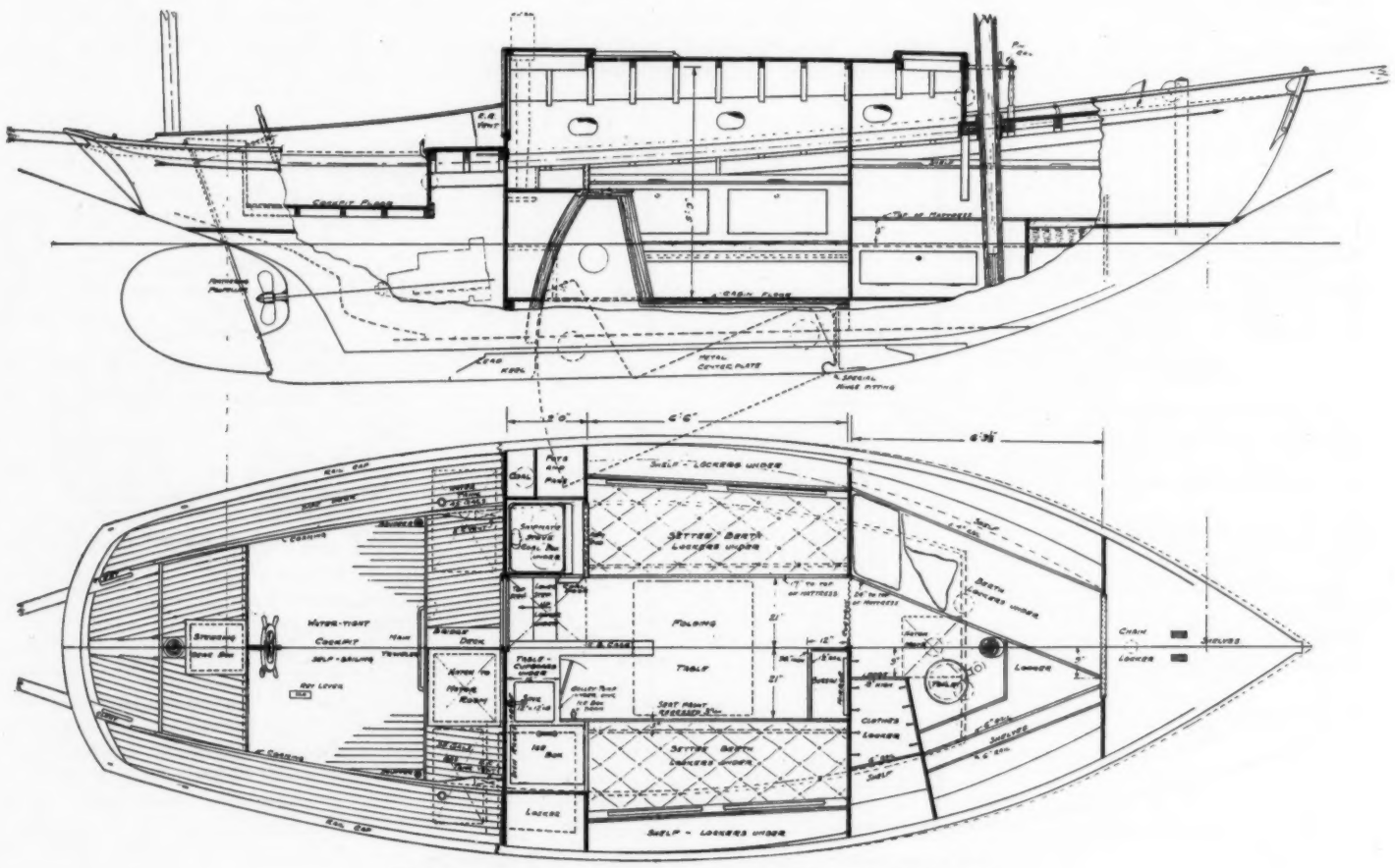
The masts are hollow and the area of the three lower sails is 590 square feet. The rig was designed for easy handling as the yacht will usually be sailed by the owner and his wife. The power plant will be a Gray Sea Scout engine of the latest model with self-starter. This is located in a compartment of its own, bulkheaded off from the cabin. A 35-gallon gasoline tank is installed on the starboard side with a 45-gallon water tank to port. A hatch in the bridge deck gives access to the compartment and ventilators are fitted on each side inboard of the cockpit coaming.



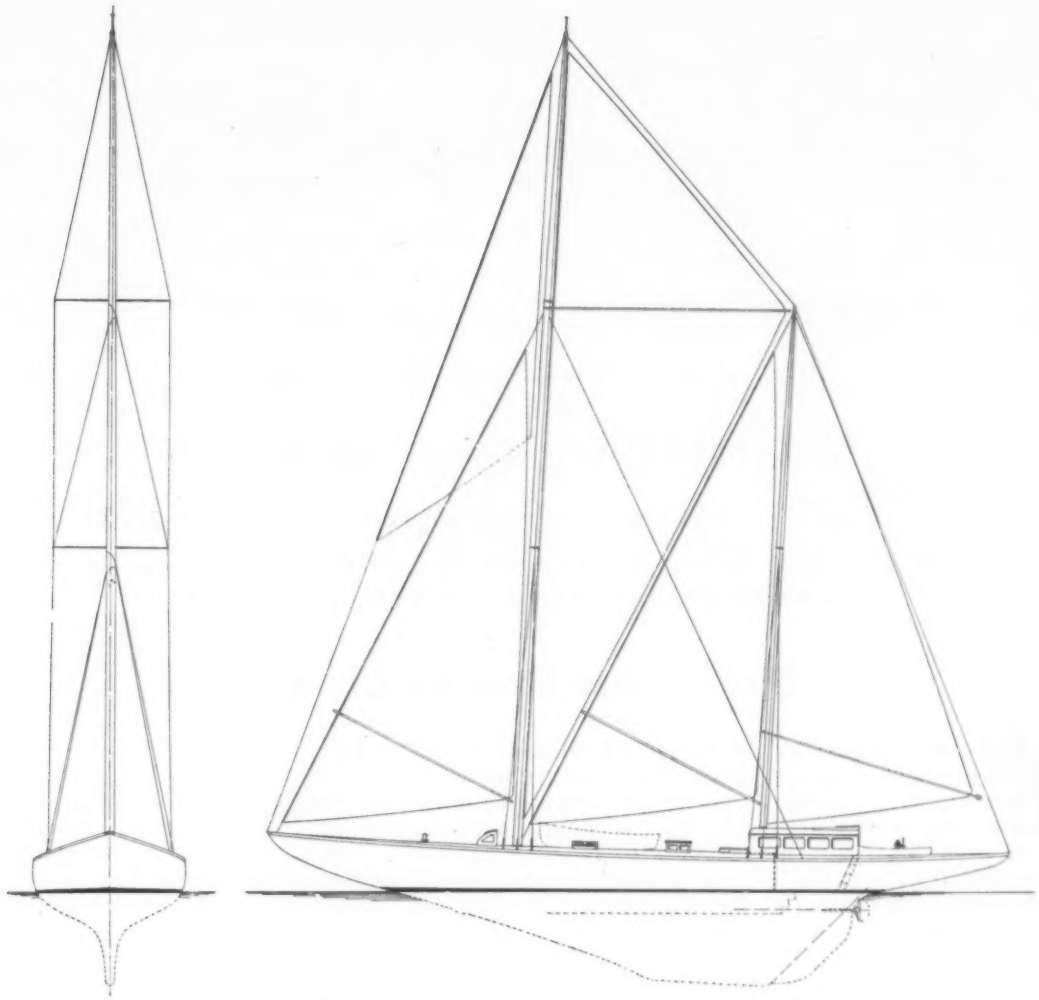
"Victory's" rig is designed for easy handling

Below deck the yacht has accommodations for three. There are two settee berths in the main cabin, with lockers under them, and shelves and lockers outboard. The seat fronts are set back to give additional foot room. A bureau is built against the forward bulkhead of the cabin. Another berth, with lockers under it, is located forward. Opposite this berth is a toilet and several shelves and a capacious clothes locker. Shelves are fitted in the eyes of the boat forward of the bitts and the chain locker is just abaft them. A cowl ventilator in the deck and a hatch in the top of the cabin trunk assure a supply of fresh air to the forward quarters. The galley is aft, with Shipmate coal-burning stove, sink, ice box, etc., and a coal bunker under the range.

As the metal centerboard is L-shaped, the part of the trunk which cuts into the cabin is small and this makes a partial bulkhead alongside the companionway. The top of the centerboard trunk is flush with the galley dresser. Headroom throughout the cabin is 5′ 8″. The cockpit is watertight and self-bailing.



The inboard profile and accommodation plan show a livable interior



Sail plan and rigging plan. She has 2920 square feet of canvas, all inboard

A 50-Foot Water Line Staysail Ketch

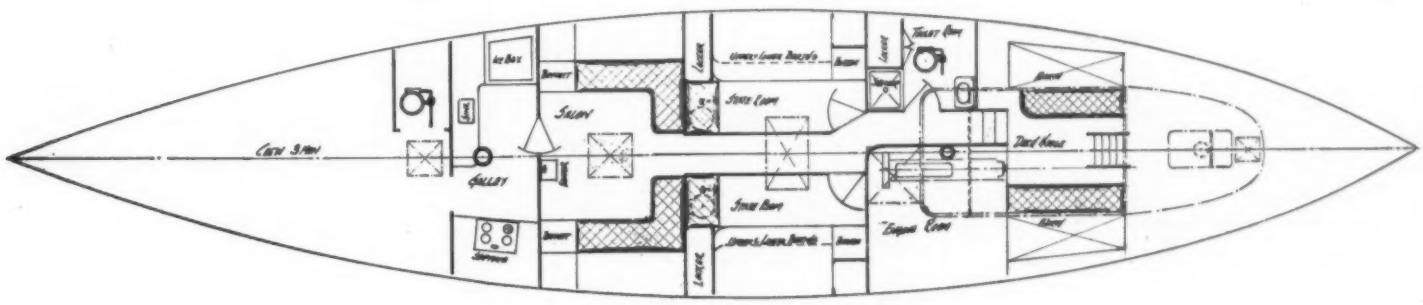
HERE ARE the preliminary plans of an up-to-the-minute auxiliary designed by the Herreshoff Manufacturing Company of Bristol, R. I., and to be built by that concern in the near future. The design was prepared for a prominent yachtsman of a large Mississippi Valley city.

The yacht's principal dimensions are as follows: length over all, 77′ 0″; length on the water line, 50′ 0″; beam, extreme, 15′ 9″; draft, 9′ 8″. Her displacement is 37 tons, quite a little in excess of the requirements of the Universal Rule. The total sail area in the lower sails is 2920 square feet. The rig shows the "wishbone" carried out to its logical conclusion, with booms of that type on the fore and main staysails and on the mizzen, while the wishbone on the mainsail is practically horizontal. The great over all length on the 50-foot water line allows the rig to be all inboard with a permanent backstay on the mizzen. The rigging plan is interesting.

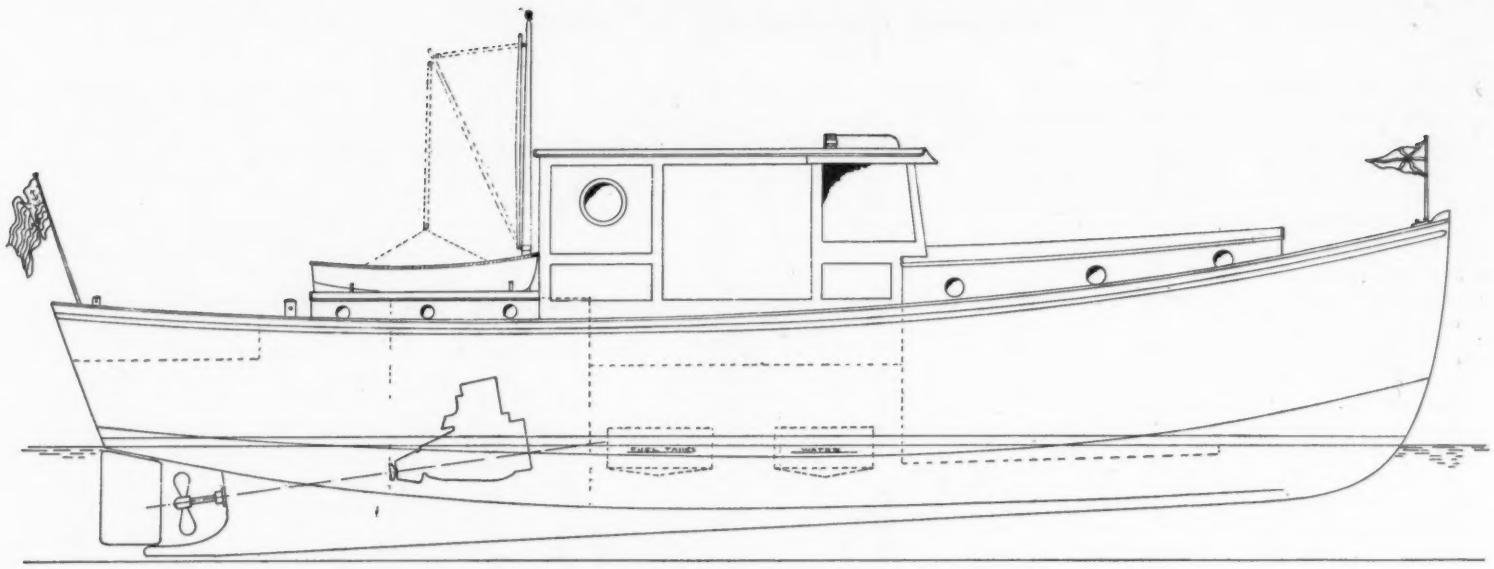
Profile and section indicate a boat that should be easy to drive and also one that should carry her sail well. It is possible that the long canoe stern may be replaced by one of the conventional transom type.

The arrangement plans show a roomy cockpit with a good-sized "doghouse" over its forward end. A companion ladder leads down from the cockpit into the double cabin aft, so that the owner can get up to the wheel in a hurry when there is need, and a ladder from the deckhouse into a lobby. The toilet room is to starboard and the engine room to port. Next forward are two staterooms with upper and lower berths in each and next to them is the main saloon, a large room. Forward of this is the galley, the full width of the yacht, with the forecastle and crew's toilet forward of that.

The engine will be a Diesel driving a screw set off center on the port side, the shaft line being parallel to the center line of the yacht.



Accommodation plan of the new auxiliary ketch



Outboard profile of 42-foot Diesel-driven cruiser designed by Ralph H. Wiley

A Diesel Cruiser From the Chesapeake

DOUBTLESS there are yachtsmen who are interested in the progress of the Diesel engine and who are thinking of having a motor boat with Diesel power installed. Not having followed the recent developments in the field of the high speed light weight Diesel, these men are still bound by the ancient tradition that the Diesel engine is extremely heavy, that it sets up severe vibration even in the stiffest boat hull, that it is unduly noisy and that its exhaust fumes resemble poison gas in their effects. They picture a cumbersome, slow-turning, heavy engine.

Those who have kept up with the latest improvements in the Diesel field realize that all of these objections to the use of this modern power are no longer valid, if they ever were. The latest engines are compact and light in weight, quiet in operation, vibrate little if at all, and are practically foolproof in service. The owner does not have to be an expert mechanic for the adjustments are all made at the factory. The new Diesels are smooth running power plants that will give good service day in and day out.

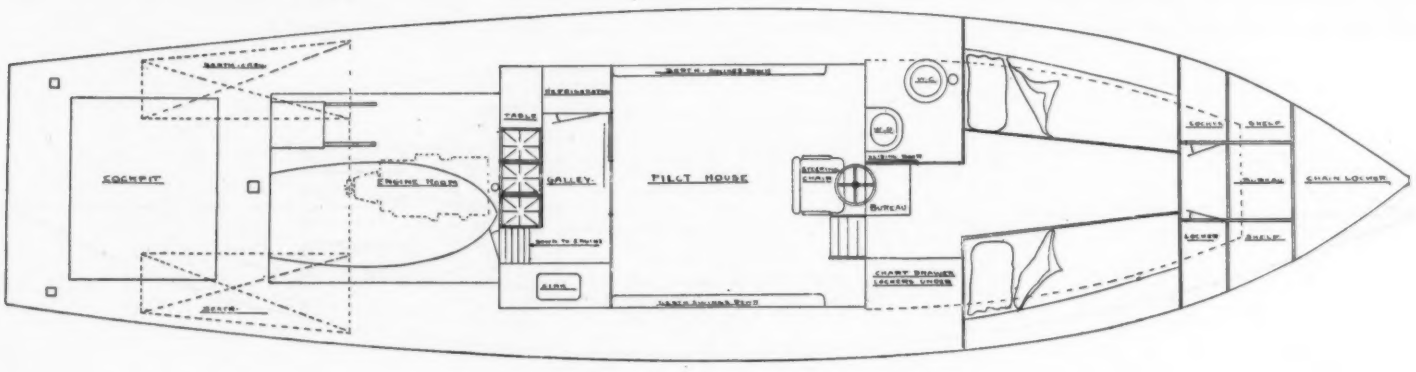
On this page are the plans of a Diesel-driven boat from the board of Ralph H. Wiley, naval architect of Oxford, Maryland. The principal dimensions of the new cruiser are as follows: length over all, 42′ 0″; length on the water line, 38′ 10″; beam, extreme, 10′ 4″; draft 3′ 4″. Like many of the Chesapeake Bay boats, the new craft is a V-bottom boat or, as they call it down there, a deadrise model. She has a long, straight keel, considerable sheer and short ends. A fairly long trunk cabin forward and a short trunk aft give headroom below and assure plenty of light and air to the cabins and to the engine room. The semi-enclosed house amidships should make an attractive lounging place either under way or at anchor. Abaft the deckhouse is a short mast with a boom and tackle for handling a 7-foot dinghy which is stowed on top of the after trunk.

The arrangement shows a practical layout for a small party. The chain locker is in the eyes of the boat with a bureau, shelves and lockers abaft it. Next is the owner's stateroom, with a standing berth on each side with drawers and lockers under. The floor in the stateroom is fairly wide and the trunk overhead gives good headroom over the floor and sitting height over the berths. Next aft there is a toilet room on the port side and a chart table with lockers under it on the starboard side. A bureau is set against the after bulkhead, just clear of the steps which lead up to the deckhouse.

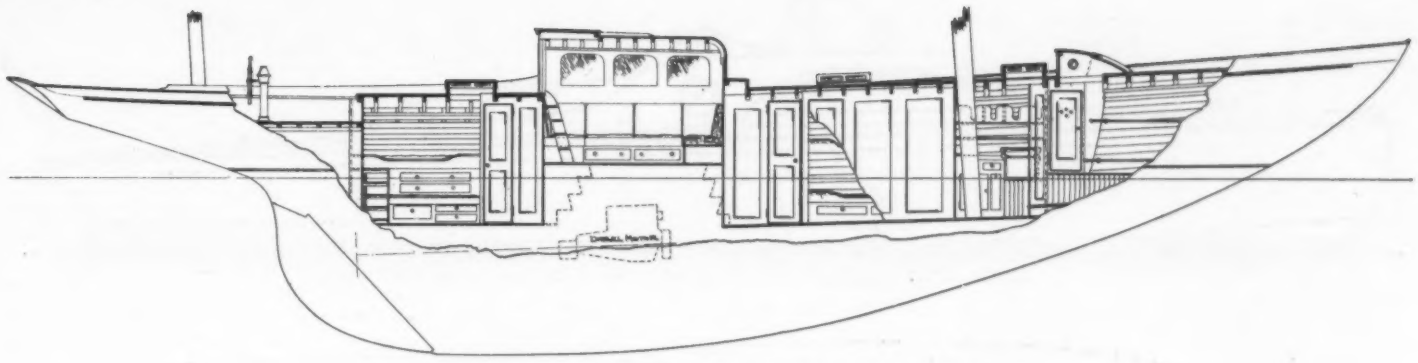
The steering wheel and engine controls are in the deckhouse, the wheel being on the center line where it belongs. A comfortable seat is provided for the helmsman. On each side of the house is a Pullman berth so that, with side curtains when necessary, sleeping quarters for two are provided. The after end of the house is given up to the galley which extends the full width. It has work table, range, sink and dresser, refrigerator, dish racks, etc.

From the galley steps lead down to the engine room. The yacht's power plant is a 2-cylinder 28 hp. Superior Diesel which will, the designer states, drive the boat at a speed of 10 miles an hour. Fuel and water tanks are installed under the midship house.

Abaft the engine room is a stateroom with two berths. The trunk cabin gives headroom over the forward part of this room and a slide gives access from the deck. The cockpit aft is wide and roomy and all clear for fishing.



The accommodation plan shows sleeping quarters for six

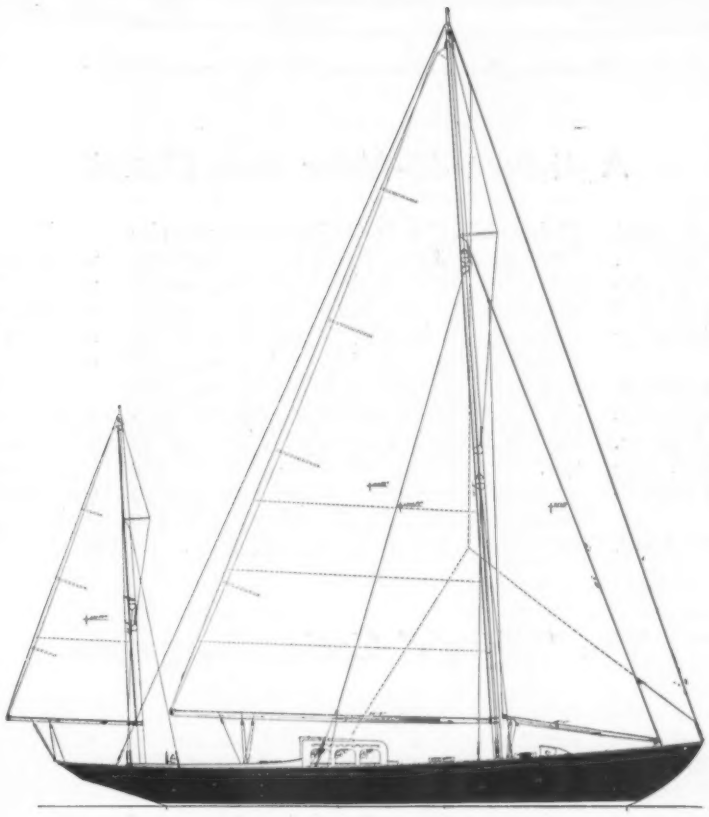


Inboard profile. There is headroom of 5 feet under the floor of the deckhouse

A Cruising Yawl With a Diesel Engine

THE PLANS of the interesting yacht shown herewith were prepared by Sparkman & Stephens, Inc., for a Long Island Sound yachtsman and have attracted much favorable comment. The principal dimensions of the new yacht are as follows: Length over all, 70′ 6″; length on the water line, 50′ 0″; beam, extreme, 15′ 6″; draft of water, 8′ 10½″. The object in developing this design was to provide a boat that would have two double staterooms and one single without exceeding 72′ in over all length and one which would still be smart under sail. As worked out, with the main cabin and dining saloon in a deckhouse with the engine room below it, the problem seems to have been solved in a way that makes for a fine, roomy craft.

Construction is of the best, with oak framing and keel and double planking of white cedar and mahogany, Everdur fastened. The deck is of teak and the deckhouse and deck trim will be of mahogany. About 30,000 pounds of lead is on the keel and a small amount of trimming ballast inside.



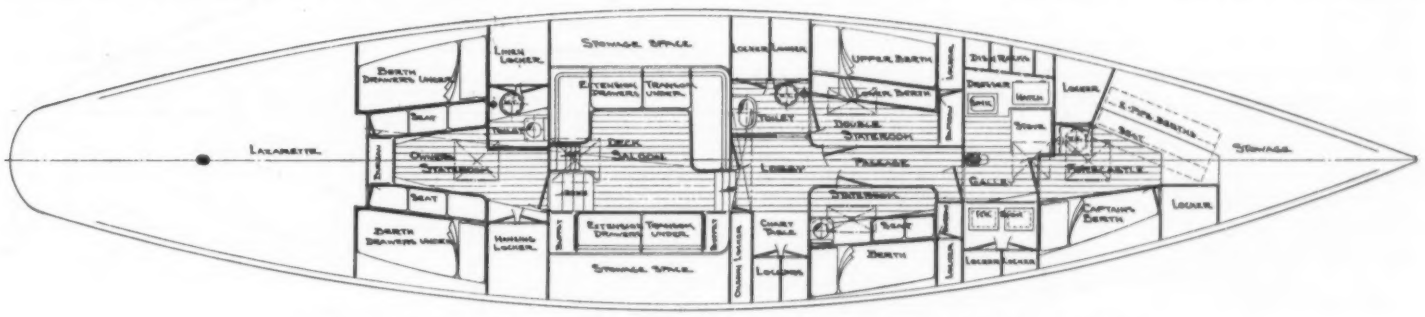
The rig is practically all inboard

The sail plan shows a pleasing sheer with moderately long ends so that neither bowsprit nor bumpkin is necessary. The rig is fairly short on the base line without going up in the air excessively. The spars are hollow and well stayed and the total sail area is 2309 square feet. Rigging is of stainless steel. The deckhouse is roomy and has an extension transom each side with storage space outboard under the deck. The cockpit coaming extends from the after end of the deckhouse to the mizzenmast, enclosing not only the cockpit but also quite a bit of deck. There is room enough forward of the house to stow a dinghy. While the deckhouse is high enough for a person sitting on the sofa to see outboard, the man at the wheel, standing, can see over the top of it.

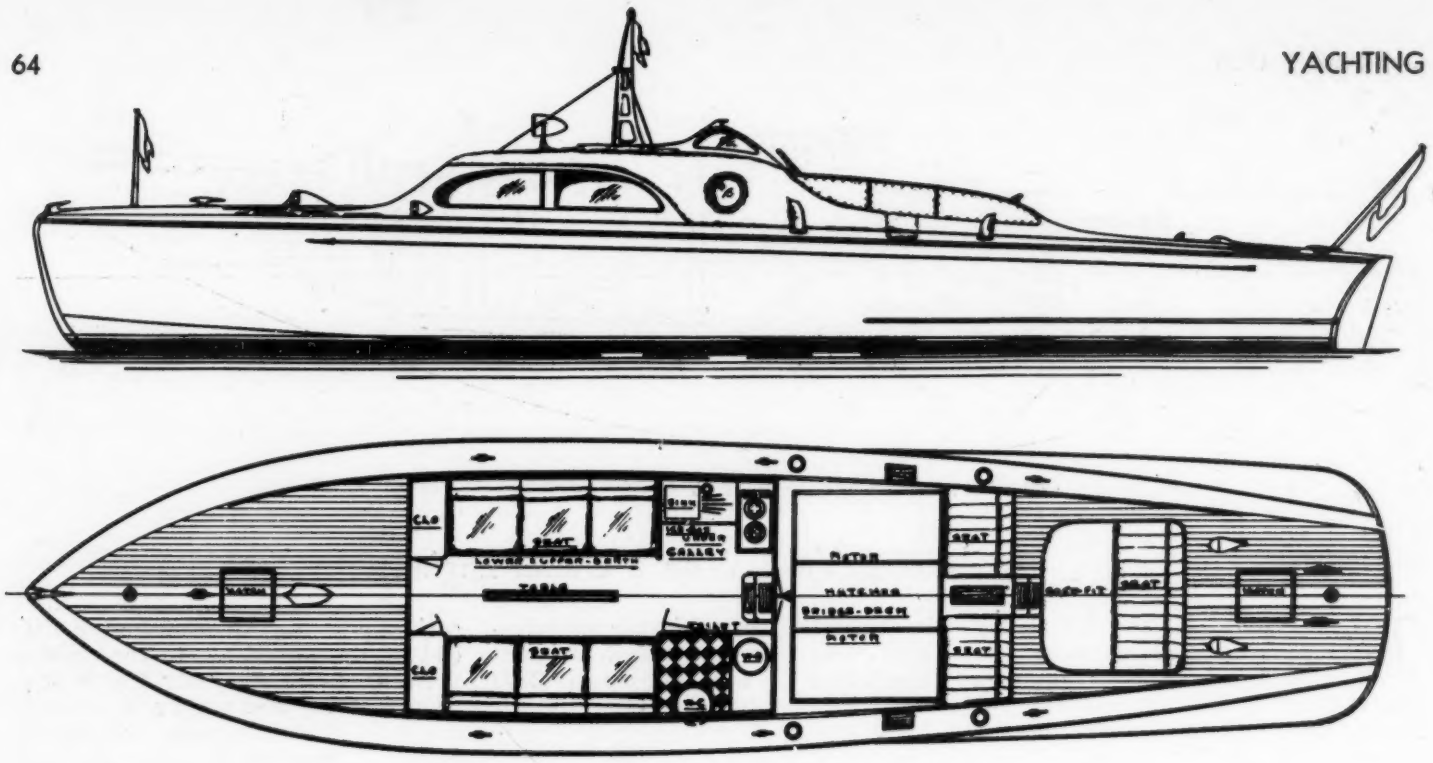
The cabin arrangement is interesting. The owner's stateroom is aft, with the lazarette abaft it, and has two berths, seats, an adjoining toilet room and a large hanging locker. Steps lead up to the deckhouse. Forward of the deckhouse, steps lead down into a lobby with a toilet room to port and a snug chartroom to starboard. A passageway leads forward from the lobby with a double stateroom on the port side and a single one to starboard. Forward is the galley, the full width of the yacht, and forward of this is the forecastle with a standing berth for the captain and two pipe berths for the crew.

The engine, a 6-cylinder 85 hp. Diesel, is located under the deckhouse with the fuel and water tanks outboard. There is 5-foot headroom in this compartment.

Bulkheads and trim are of butternut.



The owner's quarters include two double staterooms and one single, as well as the deck cabin



Outboard profile and cabin plan of the Hacker sport cruiser

A 41-Foot 45-Miler from Detroit

ABOVE ARE the plans of a sport cruiser from the board of John L. Hacker, naval architect of Detroit, designed for a foreign client. The boat will be built during the coming winter by the John L. Hacker Co.

The boat is 41′ in length over all, 9′ 6″ beam and 2′ 3″ draft. The hull is planked and decked with mahogany, the bottom being double planked. The boat is designed to run without pounding even at speed.

Forward is a watertight bulkhead. (A hatch in the deck gives access to the fore peak.) The cabin has lockers forward and a seat on each side with deep spring cushions, the seat backs swinging up to form upper berths. There is a toilet room on the port side with a compact but well equipped galley opposite. The ice box is under the sink and the two-burner stove is concealed when not in use. The cabin windows are of the elevator type with chromium plated binding outside. In the galley and in the toilet room are 12-inch port lights.

The bridge has a seat on each side aft, and the steering wheel forward, mounted on a housing which also supports the instruments and Kimball control for the engines. A comfortable cockpit, fitted with a cover, is aft.

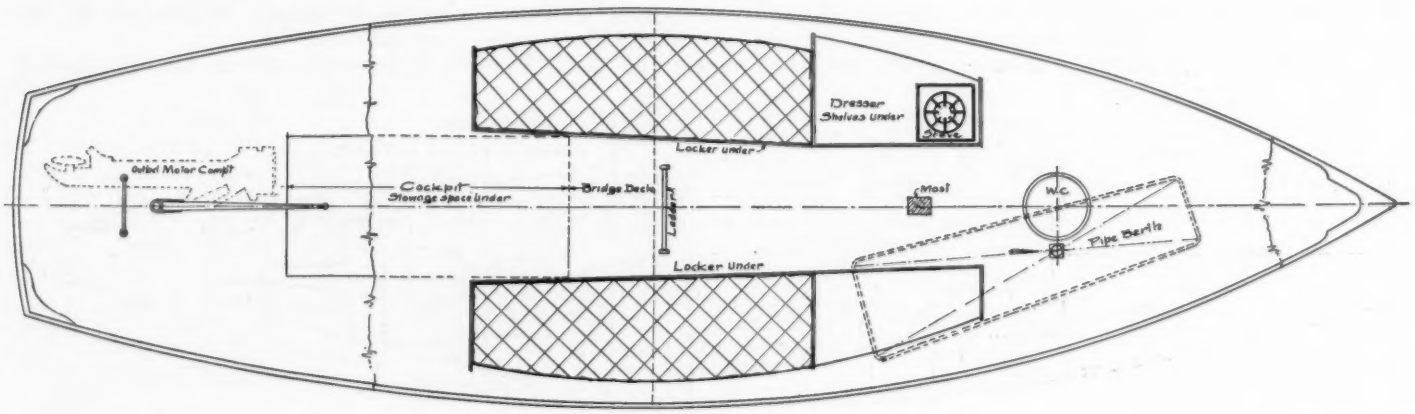
The power plant is a pair of Scripps 12-cylinder engines which give a speed of 45 m.p.h. The fuel tanks, with a total capacity of 250 gallons, are under the after deck.

All fittings and hardware are chromium plated.

The "Viking's" Cabin Arrangement

LAST February we published the plans of the *Viking*, a raised deck sloop 24′ in length over all. She was designed by Charles D. Mower, of New York, for Vivian Burnett of that city. The new boat, photographs of which appear elsewhere in this issue, is a keel sloop 18′ on the water line, 7′ beam and 3′ 6″ draft. Her sail area is 250 square feet and she has 1500 pounds of outside ballast. The raised deck gives unusual headroom for a boat of her inches and the large cockpit has room for five or six without crowding.

The cabin arrangement, while conventional, is practical, with the transom berth each side, small galley, toilet and shelves. A pipe berth may be fitted forward. There is ample sitting height over the transoms and the cabin has a lot of room for a 24-footer.



Cabin plan of "Viking," designed by Charles D. Mower

What Our Readers Say

Boat for the Olympic Regatta

Editor, YACHTING:

I SEND you herewith a photograph of an Olympic Jolle, or dinghy, as we know it here in Germany. These are the boats that are to be used in the smallest class at the Olympic Games regatta at Kiel next summer. The photo shows what they are like.

The boats are six meters long, and have ten square meters of sail. Their breadth on deck is about two meters. The race bulletin, here before me, is nearly as vague as a health bulletin, and my German is lacking.

In watching these boats sail in the eliminations to pick the German representative, I noticed that those with the best sails did well. This is, of course, obvious when talking of one-design stuff; however, to the games next year each contesting country brings its own sails, using the boats provided here. One can see that this affords a great advantage to one having a first class suit. In heavy weather these boats want large men for crew; they have pronounced V-sections and hence little form stability, and sail best nearly upright. The "Y" tiller requires some jumping under, out of, and across. The roller reefing gear is poor.

I trust the above is of some interest to American yachtsmen.

HENRY A. SCHEEL

Berlin, Germany

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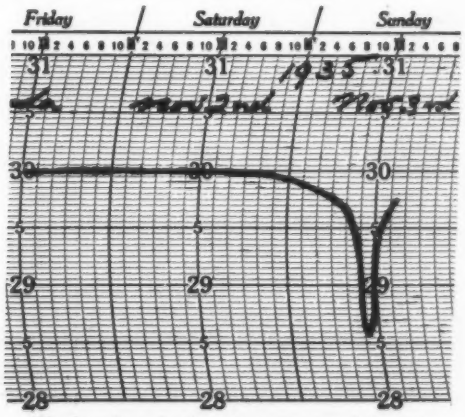
That November Hurricane

Editor, YACHTING:

HERE is a brief description of the recent hurricane that swept the Bahamas and Florida, of which I enclose the barograph chart. The *Queen of Bermuda* was at Nassau on Saturday, November 2nd, 1935, due to sail for New York at midnight. At sailing time it was blowing fresh and the radio reports indicated a hurricane with the center directly in the path between Nassau and New York. It was a very unusual hurricane because it was traveling South and occurred in November. It was futile to attempt to dodge it because there was no method of anticipating in what direction it might shift.



The hurricane's signature, as recorded on the "Queen of Bermuda's" barograph

The glass started down sharply at 8:00 a.m. Sunday morning and it blew very hard from a general westerly direction. When the glass registered its low reading, the sun came out, the wind stopped and the sea was extremely confused. When the glass started up it rose one-half inch in twenty minutes and blew at least a hundred miles an hour from an easterly direction. This lasted about an hour and then the wind gradually quieted down. The vessel behaved beautifully during the entire time although, of course, she was unable to make any headway on her course.

GEORGE E. ROOSEVELT

New York, N. Y.

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To Prevent "Ganging" in International Series

Editor, YACHTING:

IN a number of past Star Class International Championships, particularly the series of 1935, it has been obvious that due to the method under which the boats race entirely satisfactory results in establishing the merits of competing skippers have not always been obtained. After the first three days of racing there have been occasions when impromptu team racing has been indulged in by certain skippers whose standing in the series was such as to preclude their remaining actual contenders. These tactics are, as a rule, probably not used with any thought of being deliberately unfair but are a result of the heat of competition and the urge to assist a personal favorite.

In an attempt to obviate this, I have evolved a system which has been outlined in a letter to Mr. George W. Elder, President of the International Star Class Yacht Racing Association. These suggestions are made purely in the hope that they will make for better racing and sport, keep interest at a higher pitch and eliminate the chances of unfair "ganging" on leading contenders.

I am sending a copy of these suggestions to you with the thought that they will be of interest to your readers and that publication may bring comment and constructive criticism from yachtsmen throughout the country. The suggestions follow.

1. In the first three races use the existing point system. After this eliminate all but the first seven boats.

2. Sail two races for these seven, starting all over again with the slate wiped clean of points. Then eliminate all but the two leaders.

3. Sail one race for the two remaining boats, the winner to be the international champion.

There might be some team work in the third race, but even so, the two or three leaders on points, who would be those most likely to be covered, could hardly be forced down out of the first seven. In the following two races each skipper would be too intent upon making his own points to do anything but sail his own race. And in the final race, match racing tactics would be perfectly fair. Furthermore, local knowledge would not be a factor in this final race, because the two boats would be almost sure to stick close together.

The Olympic Jolle is six meters (19.685 feet) long and carries 10 square meters (107.64 square feet) of sail

Consistency would be rewarded just as much as it is now, because a boat that could survive such an ordeal would have to be an all round performer, since the weather conditions presumably would vary in the course of six races. Also, it is a fair assumption that a boat that could not place among the first seven after three races would hardly be a consistent one. The kind of weather on the last day would, of course be a big factor, but that is always inevitable in yacht racing.

I do not think the men eliminated as the series progressed would mind a bit. As things are now most of the contenders become mere spectators after the third race. Their low point score puts them out of the running and they do not pay half as much attention to sailing their own boats as they do to trying to see how the leaders on points are getting along.

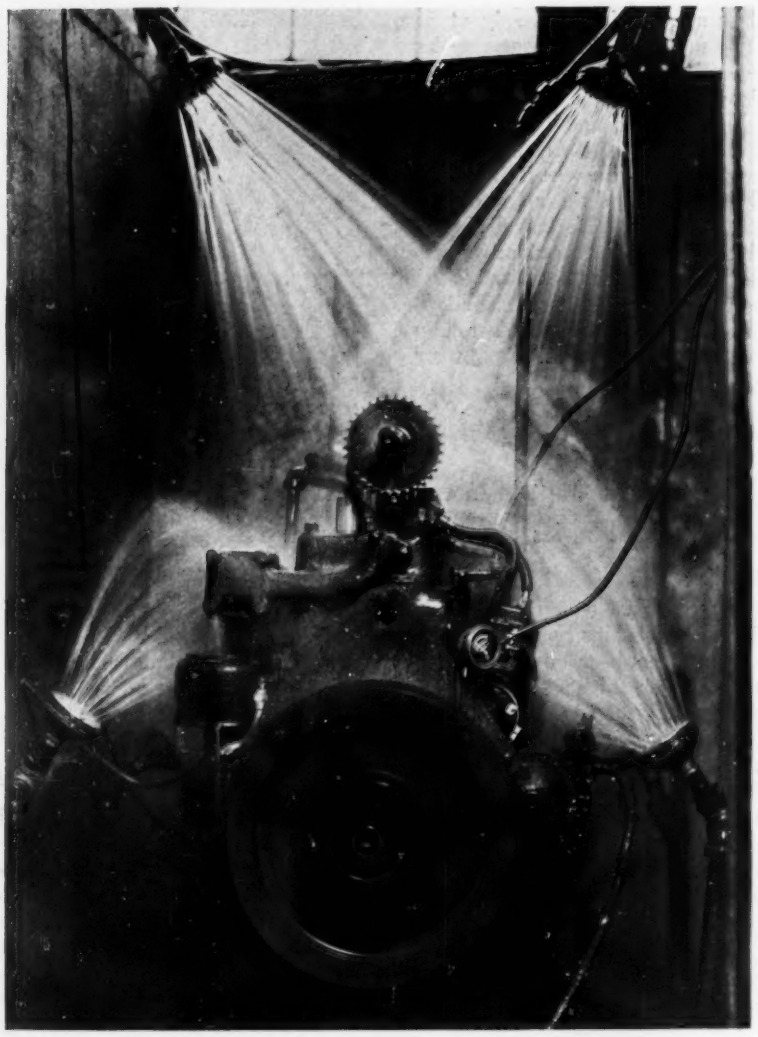
Cleaning the slate of points after the third race would put new hope into the survivors in all places below third and also greatly increase interest. It would also tend to restore the balance in favor of all round boats as against those that might have gotten their particular brand of weather in the first three races. Naturally, all points would be off after the fifth race also, so that the final contest would decide the winner.

The awarding of prizes for second, third, distant fleet, novice, etc., would not be interfered with in any way, so none of the Star Class traditions would be hurt at all. The system might be made more elastic than I have outlined it. For example, the number of survivors after the third race could be made a certain percentage of the total number of entries rather than a definite number. However, I think the final race should be for only two boats, in order to do away with any possibility of interference.

WALTON HUBBARD, JR.

Los Angeles, Cal.

Of Interest to the Skipper



A Buda engine ran for six hours under these conditions

A Severe Engine Test

A GASOLINE engine in an open boat often has to run when spray is flying and occasionally is called on to keep going when a sea comes aboard. The Buda Company, of Harvey, Ill., recently made a test of an engine under unusually severe conditions.

A Model HM 205 was chosen, a 4-cylinder $3\frac{13}{16}$" by $4\frac{1}{2}$" engine with battery and magneto equipment and a generator designed for starting, lighting and ignition. For the test, it was mounted so that eight sprays of water, four above and four below, played continuously on the vital mechanism during operation. The water was supplied under considerable pressure, making the test most exacting.

In collaboration with the Stromberg Carburetor Co. and the Scintilla Magneto Co., work was undertaken to provide an absolutely waterproof machine. Besides protecting the carburetion and ignition systems, water had to be kept out of the engine itself, no easy task.

The tests called for six hours' continuous operation at maximum power under the shower, then shutting down for an hour, the water still continuing to flow, followed by instant starting and coming to full power without backfiring or fluttering and then a thirty-minute run at full load. The engine came through the tests successfully.

Rubber in Yacht Construction

In the past few years the uses of rubber in boat construction have increased rapidly. In the building of George H. Townsend's motor ketch *Cheerio Too,* the designer, Charles D. Mower, has used Goodrich Cutless rubber bearings not only in the stern bearing but also in the rudder gudgeons to reduce wear, vibration and noise. The entire power plant is supported on rubber mountings as is the silencer in the exhaust line. All hull piping connections are fitted with rubber hose. Rubber is also used in all main and locker doors and in engine room hatches and skylights.

The Richardson Boat Co., Inc., has announced that its 1936 line of cruisers will be equipped with Goodrich Cutless bearings, rubber motor mountings and a rubber joint in the exhaust line.

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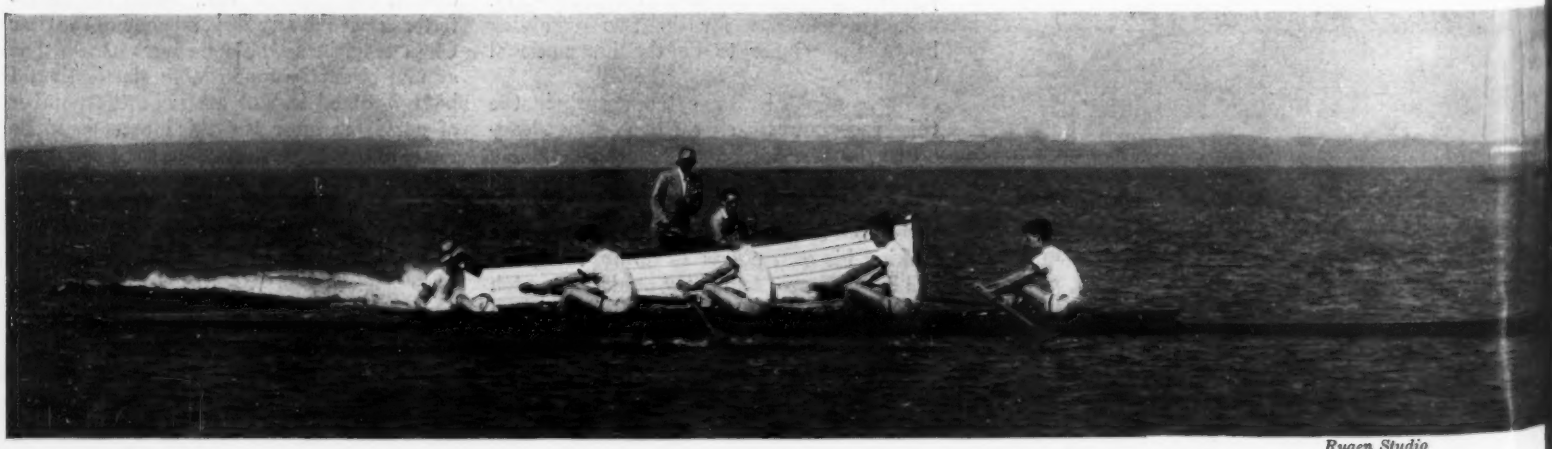
Five New Sea Horses

Two of the 1936 line of Johnson motors were announced last summer, the Models 100 and 200. The Sea Horse Model 100 is a light single developing 1.7 N.O.A. b.hp. at 3300 r.p.m. It weighs $24\frac{3}{4}$ lbs. and is the lightest Johnson ever built. Its speed range is great. The Model 200 is a light twin with fundamentally the same power head and the same quality, durability and dependability as its predecessors for the last fifteen years, refined and brought down to date. It has pressure-vacuum cooling, slow speed, float feed carburetor with throttle control, under water exhaust, etc.

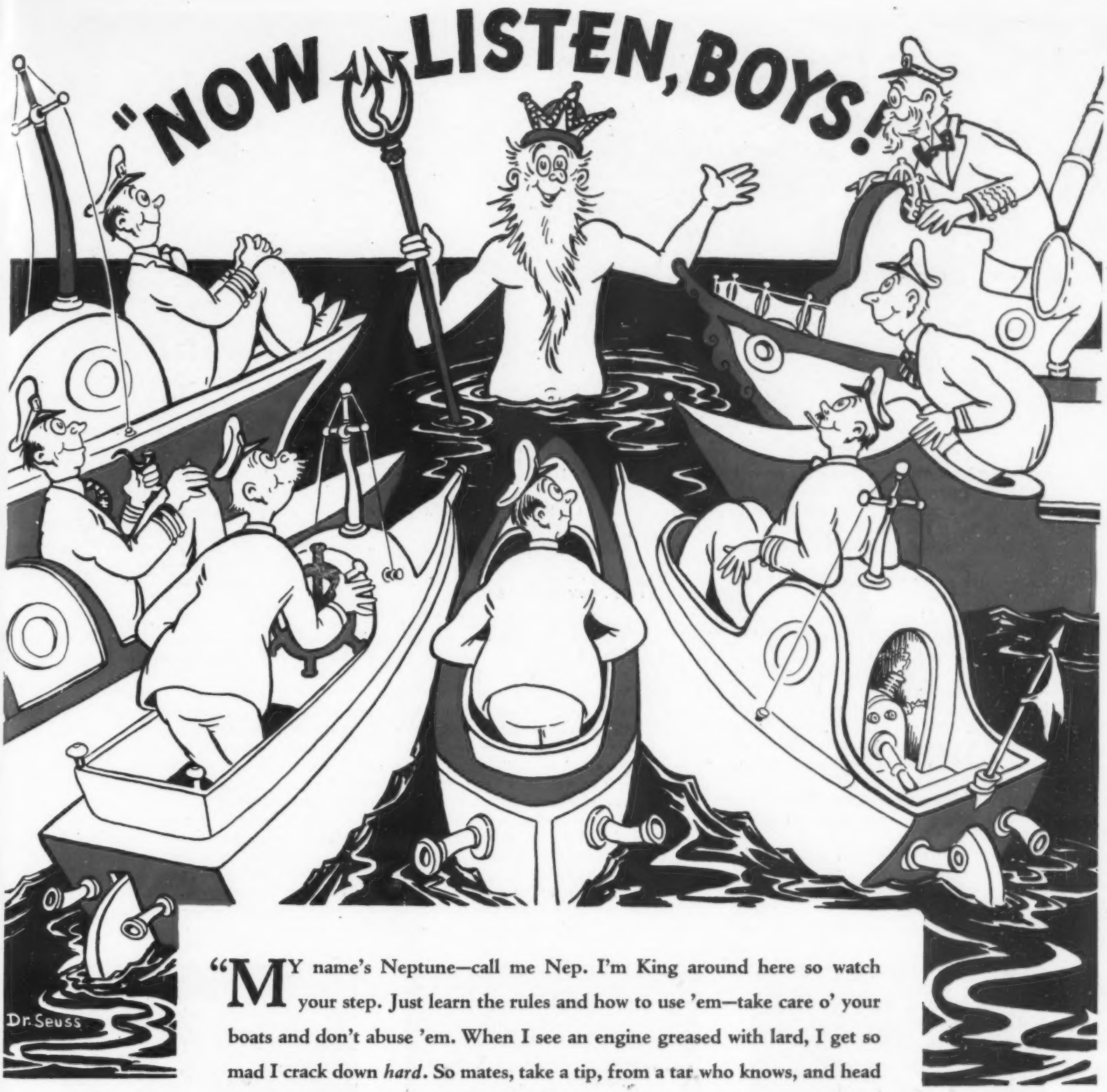
The Model J-80 is a light single known as the Little Aristocrat. A de luxe model, it develops 1.7 b.hp. at 3300 r.p.m. and weighs $29\frac{1}{4}$ lbs. It has full pivot steering, instant reverse, co-pilot, shakeproof handle, propeller protection clutch, double chamber muffler, and new port, manifold and carburetion construction for consistent slow speed operation.

The new Sea Horse Aero Built Model 300 is a development of the type of design and construction introduced in the 1935 model. Its appearance is unchanged, yet it has such features as aluminum cylinder blocks with Ni-resist iron sleeves pressed in, permitting close piston fit and insuring long life. It has

St. George's School, Newport, R. I., uses a Dodge Model 301 as a coaching launch



Rugen Studio



"MY name's Neptune—call me Nep. I'm King around here so watch your step. Just learn the rules and how to use 'em—take care o' your boats and don't abuse 'em. When I see an engine greased with lard, I get so mad I crack down *hard*. So mates, take a tip, from a tar who knows, and head for the sign where the old salt goes—'cause swab me down if Essomarine ain't the best durned lubricants I've ever seen! They stand up swell when the engine's hot and you give 'er the gun for an extra knot. She starts in a jiffy, runs smooth as you please—keeps on turnin' in the roughest seas. Yep—all your worries you'll soon be losin'—if you steer for the sign of *Happy Cruisin'!*"

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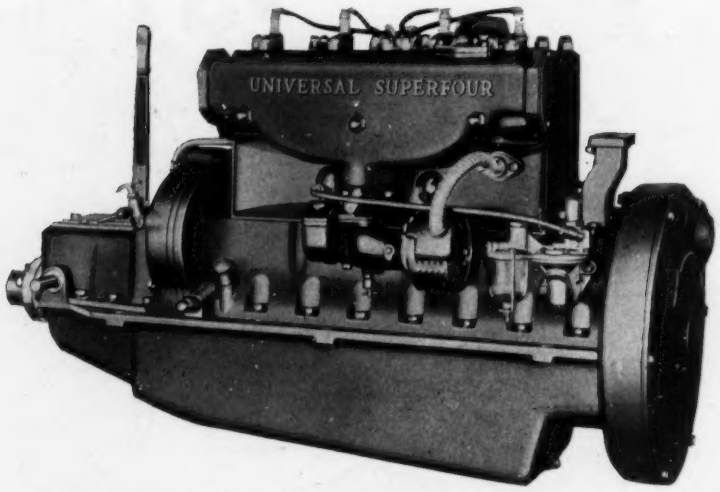
The 1936 Universal Superfour, Model LSG, is rated 40 hp. at 3000 r.p.m. It is six inches shorter over all than the previous model



"Handwerksbursch," a new 30-foot Casey auxiliary, is Lycoming powered. She hails from Newport, R. I., and will cruise south during this winter

an integral rotary valve, finger tip control pedal, synchro-control (which interlocks the spark advance and retard with the throttle), double chamber cast aluminum water cooled muffler, stainless steel propeller shaft and the other Johnson features. It develops 3.7 b.hp. at 4000 r.p.m. and weighs 37 lbs.

The Sea Horse Model A-80 is an alternate firing twin weighing 48 lbs. and developing 4.5 N.O.A. b.hp. at 4000 r.p.m. The carburetor is now equipped with a manual choke for easy starting and the rotary valve is sealed in the crankcase, preventing fuel leakage. The motor has under water exhaust, full pivot steering and instant reverse. Spark plugs are enclosed yet quickly accessible. It has pressure vacuum cooling, co-pilot, streamlined gearcase, etc.

The Model K-80 is a larger edition of the A-80. It weighs 64 lbs. and develops 9.3 N.O.A. b.hp. at 4000 r.p.m.

Johnson's largest outboard is the Model P-80, a smooth running, powerful opposed twin for driving family runabouts and for commercial purposes. It has roller bearing connecting rods, release charger for easy starting, streamlined gearcase with cavitation plate and numerous other valuable features. Its weight is 109 lbs. and its N.O.A. b.hp. is 22.

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The Newest Superfour

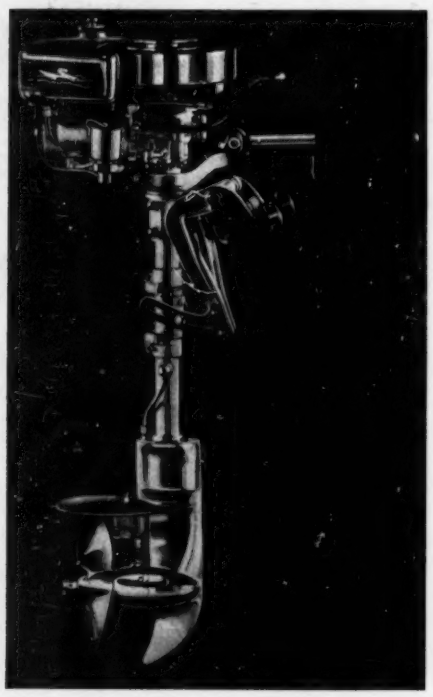
The Universal Motor Company, of Oshkosh, Wis., has just announced a new and improved model of its well-known Superfour marine engine. This is a 4-cylinder motor of 3¼" bore and 4½" stroke which is rated 40 hp. at 3000 r.p.m. The over all length is 39⅝". Width between centers of bolt holes is the same as before, 12½", so that one of the new engines will go on the same bed as the old one. The weight is somewhat less.

Starter, generator and coil are on the starboard side of the engine and carburetor, manifold and fuel pump on the port side. Design and construction of the reverse gear are the latest and greater accessibility is provided through a special housing design, the housing being split along the center line of the crankcase. The top is readily removed and adjustments may be made quickly. The engine drives through a new clutch and self-centering cone arrangement, quiet and without backlash. The reverse gear is pressure lubricated. Self-adjusting oil seals are fitted on the reverse gear cross shaft, the propeller drive coupling, motor end, and on the flywheel end of the camshaft.

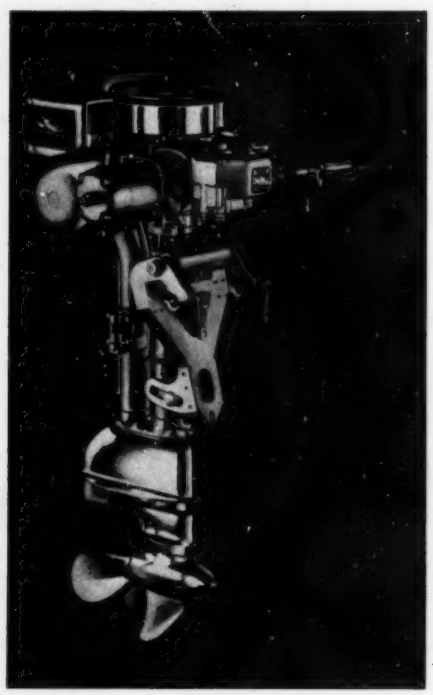
The engine has improved pressure lubrication and oil relief and the oil pump is driven off the crankshaft gear through helical cut gears. Timing gears are wide faced and are helical cut to insure quiet operation. The new bronze gear type water pump is direct driven from the generator gear.

The depth of oil in the pan is easily measured and the handy, built-in sump pump makes oil changing a quick job. There are other improvements: provision for installing a mechanical fuel pump; cushioned camshaft end thrust and automatic compensation for wear; connection for attaching tachometer drive; metric spark plugs, etc.

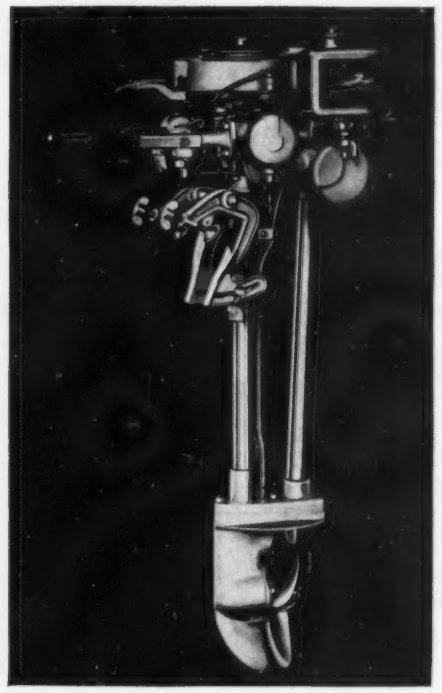
The engine is available with either direct or reduction gear drive and with electric starting or magneto ignition.



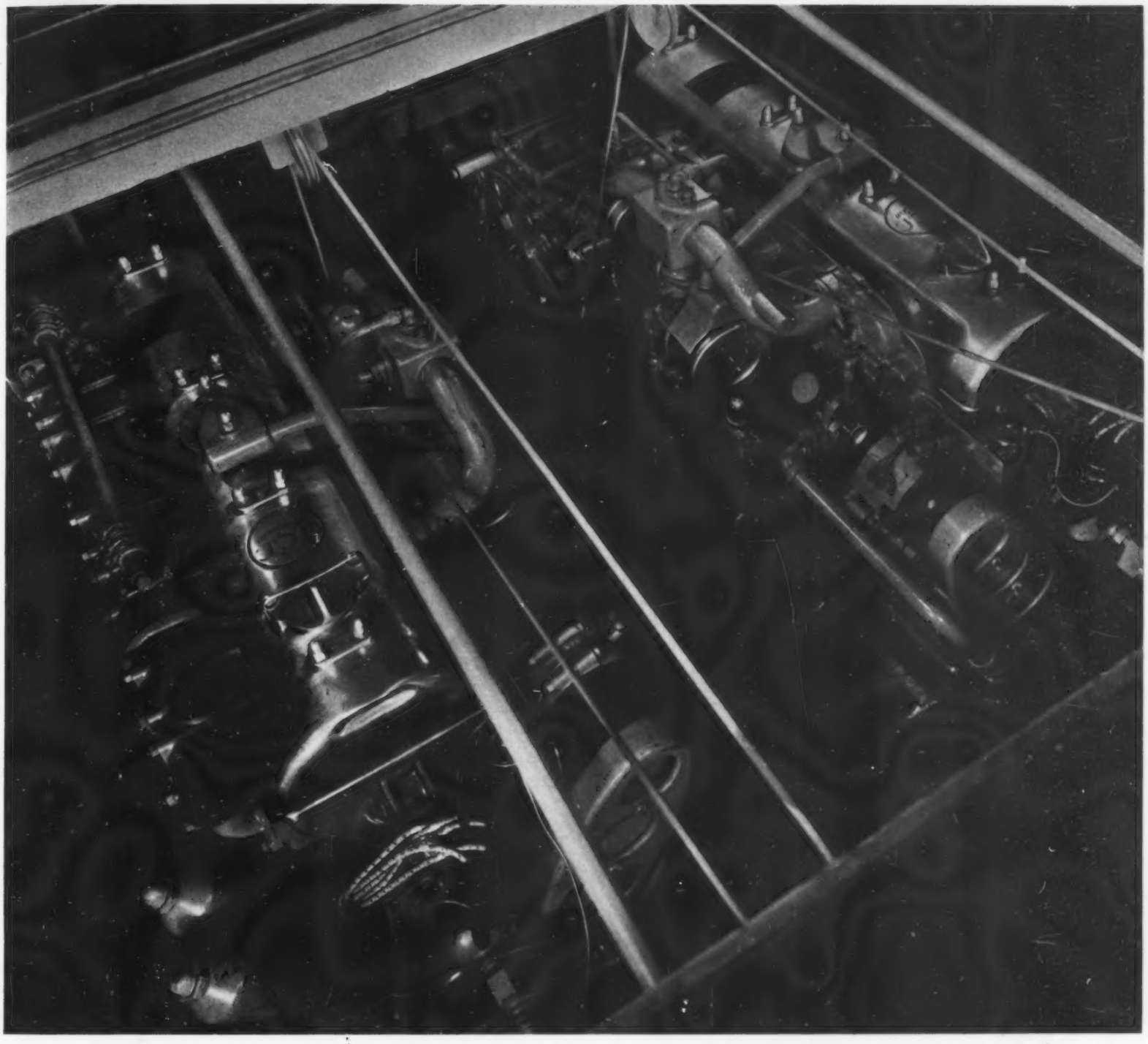
The Model J-80 Sea Horse, a light single



Model P-80 is Johnson's largest outboard



Model 200, a light twin, rates 1.7 hp.



HALL-SCOTT REPOWERS WELL-KNOWN PACIFIC COAST CRUISER

The *Camid*, owned by Mr. Middleton M. Chism of Seattle, Washington, has recently been repowered. Her new power plant, twin Hall-Scott Navigators with 2:1 reduction gear, gives her a top speed of 14 knots—highly satisfactory for a 63-foot boat with 11 foot beam.

The *Camid* is another and interesting addition to the large and rapidly growing fleet powered and repowered by Hall-Scott. There is a Hall-Scott engine from 40 to 375 h.p. for almost every marine need.

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Books for the Yachtsman

Ships That Have Made History

By Gregory Robinson

(Kennedy Brothers, Inc., New York, $3.75)

THE average man thinks of the old time ships as tubby, high-sided structures with towering poops and forecastles and sheers like a chair rocker. Much of our information about the old craft is derived from contemporary paintings and drawings, from coins, seals of cities and other heraldic designs, and from old, old tapestries. Though here and there details in such representations may be correct, they were drawn by artists who knew nothing of ships and the sea. Even today, in this age of the camera, many an artist goes wrong when he tries to portray a ship. Unless he is a sailor, he seems sure to make glaring errors.

The author of *Ships That Have Made History* is, first of all, a talented artist. Next, he is familiar with ships and the sea. (He has voyaged around the world in a square-rigger.) He is also a marine archaeologist, having been one of the original members of the Society of Nautical Research and a frequent contributor to its *Journal*. He has considerable knowledge of naval architecture and, most important, he writes entertainingly and his style is delightful.

His portraits of ships are remarkable. The ships are in the water, and that cannot be said of the work of all marine artists, and they look real. Whether running off before a strong breeze or sliding lazily over an oily sea, they look like ships and seem to be contemporary portraits rather than reconstructions. A dozen of these pictures are in color and scattered throughout the text are charming black and white illustrations.

The author tells us first what the early ships were like and shows that they were far from being tubs but were seagoing vessels that had, some of them, a surprising turn of speed. He then goes on to tell of such famous vessels as Francis Drake's *Golden Hind*, Columbus' *Santa Maria*, the *Sovereign of the Seas*, James Cook's *Endeavour*, John Paul Jones' *Bonhomme Richard*, and other notable craft. He tells how they were built and takes the reader aboard for long voyages or thrilling battles. And, without trace of pedantry, he makes one feel that the old ships were and must have been as he describes and pictures them.

Altogether a delightful and valuable book.

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The History of American Sailing Ships

By Howard I. Chapelle

(W. W. Norton & Co., Inc., New York, $7.50; Edition de Luxe, with etching by George C. Wales, $27.50)

READERS of YACHTING are familiar with Mr. Chapelle's work as exemplified in the articles he has written on various types of American sailing craft, pilot boats, sharpies, Friendship sloops and so on. They can appreciate the amount of painstaking research necessary to unearth the plans and the histories of the vessels and the work of drawing the plans for reproduction.

The History of American Sailing Ships is the story of American shipbuilding and designing from colonial times to the close of the era of sail. The author describes and illustrates typical vessels and traces the evolution of their types through the years. Naval vessels, privateers, slavers, fishermen, working schooners and larger merchantmen are treated of and the development of the yacht is traced. Crisp biographies of the early designers and builders add to the interest.

There are more than 150 drawings, practically all hitherto

38-FOOT GREAT LAKES CHRYSLER POWERED CRUISER

BROAD HORIZONS . . . *and a* Chrysler

IT's a source of satisfaction, with a Chrysler Marine engine in your boat, to feel that you have the last word in Dependability, that when you point to the open water . . . toward the broad horizons . . . your day will be complete with all of the joys and benefits of boating. Motor boat time is pleasure time. Make the most of it with an efficient, trouble-free engine. Choose an engine designed by marine experts and built in the plant of one of the world's largest gasoline engine manufacturers to the very highest standards. Here you will find every worthwhile new feature. Choose a Chrysler.

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unpublished; lines, deck layouts, profiles, sail plans, charming perspective projections of notable craft and spirited sketches of the vessels under way. In addition, there are many reproductions of contemporary paintings and photographs. The drawings are by the author, by George C. Wales, and Henry Rusk.

In the text, Mr. Chapelle has done a splendid piece of work. He has gathered an amazing amount of material and written his conclusions in an attractive and readable style. He has scant respect for tradition unless backed up by facts. He takes up in detail the alleged "French influence" on the design of our early frigates and neatly punctures that hoary tradition.

How many of us realize that the present Coast Guard was preceded by the Revenue Cutter Service? And that the old time revenue cutters were schooners? Mr. Chapelle does, and he gives the plans and histories of a number of the early vessels of what he calls "The Forgotten Service" in a most interesting chapter.

And he does not guess. When he has had to reconstruct some detail of an old plan, he says so. When he does not know, he also says so, which lends the greater authority to his book. Model builders will find the book a mine of information.

Altogether an excellent book and a "Number One Must" for every sea lover's library.

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Motor Cruising

By K. M. Miller and John Irving

(J. B. Lippincott Co., Philadelphia. 1935. $7.00)

MANY books on the practical side of yacht handling under sail, both for the racing man and the cruiser, have been published in the past, but not until this volume (one of the Lonsdale Library) appeared have we seen a really comprehensive book for the motor yachtsman, or one that would compare, for instance, in wealth of material and thoroughness, with Claud Worth's *Yacht Cruising.*

The book deals, of course, with motor cruisers as developed in Great Britain. The authors, one of whom is connected with "The Yachting World," London, and the other with "The Field," are both well-known authorities in their particular lines, and they have, in addition to writing much of the book themselves, been able to have certain technical phases of the subject covered by those who stand high in the fields of naval architecture, engineering, etc. Here will be found chapters on motor yacht design by Norman Hart; on construction by W. McC. Meek, senior surveyor to *Lloyd's Register of Shipping;* on steering gears by Capt. O. M. Watts. Power plants for motor boats and their installation and operation are thoroughly discussed. Starting with the types of motor craft for various uses, the book takes one through every phase of design, construction, and powering down to the actual operation of the boat herself, and her handling under all and varied conditions. It is profusely illustrated.

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A Useful Book for the Yachtsman Going South

ONE of the most beautiful and at the same time useful books that has come our way in a long time is one recently published by the Commissioners of the Florida Inland Navigation District to announce the completion of the Intracoastal Waterway of the Everglade State.

After years of work and the expenditure of millions of dollars by the United States Engineer Department, the Florida Intracoastal Waterway from the St. Johns River to Miami now has a channel 100 feet wide and 8 feet deep at local mean low water.

The book now published not only gives a description of this waterway and a history of the development during the past ninety years of the coastal bays and rivers of Florida for navigational purposes, but contains four detailed maps of the route, in colors, from Fernandina to Key West, and tabulated information as to distances between points, bridges, etc. Several pastel drawings and numerous photographs of scenes along the coast add to the attractiveness of this valuable book.

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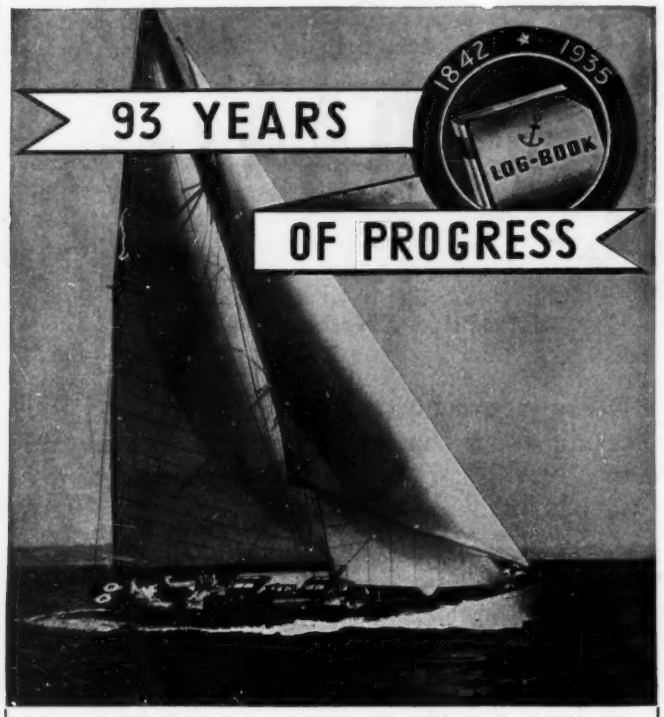

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Yachting Notes From Great Britain

Time Allowance in Deep Sea Races

ONE of the chief "signs of the times" on this side of the Atlantic is the new and ever growing interest which is being taken in long distance deep sea racing. This branch of the sport, during the ten years since the first Fastnet race was sailed, has shown a steady development along the lines laid down by the founders of the Royal Ocean Racing Club in 1925. From the outset, it has been realized that a policy of gradual expansion, both as to the number of races to be held and to the conditions governing the sport generally, would lead to the best results in the long run. Naturally, there have been changes, dictated by experience, in the club's annual programs, in the time scales adopted from time to time, and also in the method of measurement for rating purposes.

In addition to the Fastnet and Channel fixtures, long distance passage races, such as those to Heligoland and Belle Isle, have become annual — and very popular — events. The measurement rule, which has been modified periodically to suit changing conditions, has now been fixed for a number of years, and a scantling rule has been adopted which has had the effect of putting heavily built cruisers definitely on a better footing as compared with normally constructed deep sea racing craft. With the very important task of finding a really satisfactory time scale, it cannot be said, with truth, that so far the club has been equally successful.

The scale at present in use, which is a modification, in "strength," of that of the New York Yacht Club, has worked fairly well in the case of the Fastnet and Channel races, but there can be no doubt that it may be far from satisfactory when applied to the elapsed times of yachts of different ratings in a straightaway port-to-port race. While it must be admitted that it has given good results in the races from Cowes to Saint Malo, the reverse was the case in this year's passage race from Burnham-on-Crouch to Heligoland. The scratch vessel, *Asta*, with a rating of 78.7 feet, would have had to average about 16 knots to beat the winner, *Hajo*, rating 22.6 feet. *Asta* is a very fast boat, but a speed of 16 knots for a craft of her rating is quite out of the question, and an examination of the Heligoland corrected times obviously led to the conclusion that the time had come for the time scale to be overhauled.

The Royal Ocean Racing Club is fortunate in having a number of members who take a keen interest in the technical side of its administration, and one of this number, H. R. Barrett, a hard-bitten sailor man, set himself to find a satisfactory way out of the difficulty. The result of his investigations, which were based on his knowledge of the actual performances of yachts of different sizes, under widely varying conditions, appears to offer a simple and, at the same time, an equitable method of adjusting the elapsed times of yachts of different ratings. By the New York Yacht Club and Royal Ocean Racing Club time scales, a yacht's position on corrected times may depend far too much upon the time taken by the yachts to complete the course. Assuming the relative speeds of two yachts of similar design, but of different size, to be the same over a fast sailed and over a slow sailed course, the smaller yacht — as in the case of the Heligoland race — might win by a large margin in the "fast," and be beaten by an equally large margin in the "slow" race. This alteration of position on corrected times cannot result by the Barrett system, the only change being that the difference in the corrected times of the two yachts would vary directly with the length of the elapsed times.

By the New York Yacht Club's time scale, a yacht of 100 rating is assumed to make 9 knots under average racing conditions; and one of 16 rating, 4.97 knots. Under the existing R.O.R.C. scale, a yacht of 16 rating must make 4.32 knots to tie with the 100 rater's 9 knots. By the Barrett scale, the figures are 9 knots for the 100 rating and 4.5 knots for the "16." The essential difference, however, lies in the fact that for any length of elapsed time, Barrett asks for a constant ratio between the different ratings, while in the case of both the other scales the ratio varies with elapsed time taken to cover the course. At the time of writing, the scheme has yet to be passed by the General Meeting of the Royal Ocean Racing Club, but its outstanding advantages are so obvious that, in my opinion, there can be no question as to its acceptance.

As I have already said, Barrett has based his scheme on the assumption that the speed of a yacht of 16 feet rating will be one half that of one of 100 feet rating, under average racing conditions. He arrived at this conclusion only after a most exhaustive study of the actual performances — to windward and sailing free — of well-known representative yachts, and also of the results, extending over some years, of the Fastnet, Channel and Heligoland races.

The formula he has adopted is simplicity itself, being. $E \frac{\sqrt{R}+2}{10} = C E T.$

"E," being the elapsed time taken by any yacht to complete the course
"R," the rating of the yacht in feet
"C.E.T," the yacht's corrected time for the course.

That is to say, the elapsed time of a 100-footer has to be multiplied by 1.2; that of a 64-footer by 1.0; of a 36-footer, by.80; of a 25-footer, by .70; and of a 16-footer, by .60. The actual procedure will probably be to multiply the elapsed time in seconds by $\frac{\sqrt{R}+2}{10}$ taken to the nearest four places of decimals.

It may be asked how such a scheme would affect the result of this year's Fastnet race. The answer is that there would be no change in the positions of the first three yachts and *Stormy Weather* would still — as she deserved to be — be the winner by several hours, while some of the smaller cruisers would make a relative gain, and the ex-racing type *Kismet* would drop about three places. It should always be remembered that it is well for an outstandingly fine performance, such as that of *Stormy Weather* in the Transatlantic and Fastnet races, to be left out of the picture when considering the merits of a rating rule or of a time scale, unless one can be assured that she has, as competitors, yachts which are equally well designed, equipped *and sailed*. Where the Barrett method scores, most definitely, is in such races as that from Burnham to Heligoland, in which, incidentally, the yacht with the finest performance is made the winner; the scratch vessel is given a sporting chance of winning; and the first twelve boats on elapsed time are brought about fifty per cent nearer together.

A point to be realized, in connection with the method, is that there is no need to work out time allowances before the start of a race. All that is needed is that each yacht should have the figure found by the formula, $\frac{\sqrt{R}+2}{10}$, marked on her rating certificate. For example, a yacht of 40 rating would have the figure .8325 on her certificate. Her elapsed time, over any length of course, multiplied by this figure, would represent her corrected time for the race.

M. Heckstall-Smith

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Barnegat Bay Yachting News

ACTIVITIES of the past summer on Barnegat Bay indicate a growing tendency in this region toward national and international classes and away from purely local classes. The only inter-sectional event on the Bay last summer was the annual Labor Day Star Series, which brought out twenty-four entries from nine Atlantic seaboard fleets. And the big topic of conversation along the shore just now is the building of at least ten of the popular little Comet Class sloops.

Several more Stars will add to the class which was the largest of the major divisions on Barnegat last summer. The Snipe Class, which in its second year saw double the entries over the previous summer, reports further increases in prospect for 1936, and the Moth Class shows substantial progress.

In contrast to the Stars, Snipes, Moths and now the Comets, the decline of interest in purely local classes was a cause of real concern. The Class B or gaff-rigged cat boats went into complete oblivion after having held the center of the arena for some seventy years. Their successors, the gigantic Marconi rigged Class A cat boats, barely held their own. The Inland Lake double bilgeboard scows, or Class E sloops, saw further shrinkage in entries. Barnegat and Atlantic Coast small boat sailing can ill afford to lose this spectacular class.

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The B. B. Y. R. A. 1935 championship winners were as follows:

Moth Class. *Undertaker II*, Island Heights Yacht Club, J. Wright, skipper, 95.2%. *Ex*, Seaside Park, J. A. Griffiths, 84.7%.

Junior Catboats. *U.D.*, Miss Isabelle Benkert, Seaside Park, 53.8%. *Petrel*, Mrs. J. R. Williams, Seaside Park, 52.3%.

Class A sneakboxes. *Doon*, R. Colie, Jr., Mantoloking, 92.3%. *Flying Ebony*, E. W. Ill, Jr., 78.2%.

Class B sneakboxes. *Scud*, L. De Camp, Bay Head, 95.3%. *Brainstorm*, H. Tomlinson, Mantoloking, 85.7%.

Class E sloops, Div. 1. *Alouette*, S. V. Merrick, Bay Head, 92.0%. *Alita*, Miss F. Chance, Mantoloking, 59.4%.

Class E sloops, Div. 2. *Witch*, W. Stahler, Seaside Park, 85.2%. *Scamp*, J. E. Orchard, Bay Head, 77.8%.

Class A cat boats. *Mary Ann*, S. R. Gale, Island Heights, 66.0%. *Bat*, E. L. Crabbe, Toms River, 60.0%.

Snipes. *Ploop*, W. Van Sciver, Island Heights, 76.4%. *Ariel*, G. M. Austin, Island Heights, 52.8%.

*Stars. *Merigale*, J. Trumpy, Jr., Seaside Park, 86.0%. *Sue*, F. T. Brooks, Island Heights, 77.7%.

*Final Star results subject to revision on decision of appeals on final race.

Charles E. Lucke, Jr.

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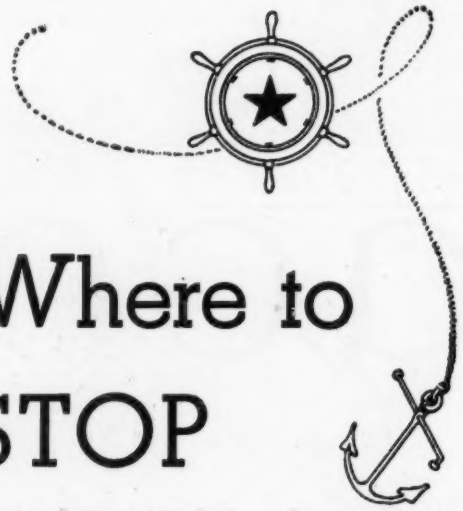

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OFFICIAL MOTOR BOAT SHOW HEADQUARTERS

News from Yachting Centers

Massachusetts Bay Flashes

By ED EARLE

THE successful debut of the new Dark Harbor one-design class last summer has left its wake. Another new addition for the Down East fleet is building for Oliver Iselin of New York, at Lawley's Neponset yard, from the designs of Sparkman and Stephens.

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John G. Alden reports extraordinary interest in new boats of all types, his drafting room being busy on plans of new designs, contracts for which will be placed shortly. Among his orders is a 72-foot over all schooner for Milton Knight, of Toledo, which will be 54 feet water line, 16½ feet beam, 10 feet draft. She will have the old-fashioned topmast gaff schooner rig, and a teak flush deck and low deckhouse. A 6-cylinder Buda Diesel will be installed. Mr. Knight, who has owned three other Alden-designed schooners, the last being the 84-foot over all *Bimesa*, will probably enter his new boat in the Bermuda Race. John G. Alden has also designed a 37-foot over all ketch, with a canoe stern, for Edmund Hayes of Portland, Oregon. She is 30 feet water line, 10 feet 2 inches beam, 5 feet 5 inches draft, and is equipped with a Gray reduction gear motor. The yacht, which is nearly completed on the West Coast, will be christened *Swiftsure*.

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The first fall smoker of the Quincy Yacht Club, with Roy Pigeon as guest speaker, the annual Cup Night of the South Boston Yacht Club, and the Closing Night dinner of the Savin Hill Yacht Club, were high lights of the past month.

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Samuel H. Brown, R. N. Burbank, H. F. Newman and J. S. Barry, all well known in the yacht designing field, are now busy in Eldredge-McInnis' drafting room working on plans for the Coast Guard patrol boats and other craft for the coming season. A duplicate of the 43-foot sport fisherman *Cero*, built this year from Eldredge-McInnis designs, is nearly completed at F. S. Nock's yard at East Greenwich, R. I. The 35-foot power cruiser owned by E. C. Woodward, Rockland, Mass., has been sold through this office to F. W. Vogel, of Berlin, N. H.

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Eldredge-McInnis also report the sale of a late model 47-foot Matthews cruiser, *Buddy III*, formerly owned by J. Dunn of Providence to a Boston yachtsman; and the 34-foot power cruiser *Barbara* from H. A. Powers of Wakefield to W. H. Church of Plattsburg, N. Y. Other transfers include the 40-foot power cruiser *Hujunan* from H. W. Crawford of Webster to Captain William Higgins of Brookline; the Class O racing sloop *Teal* from E. F. Stevens, of the Hingham Yacht Club, to G. Amazeen, of Portsmouth, N. H.; and, the Herreshoff Class S sloop *Tinker* from Walter M. McKim of the Corinthian Yacht Club to Horton Brown of Marblehead. The *Tinker* has done little racing the past two years and her return will swell the "S" Class at Marblehead this summer.

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Chaisson, of Swampscott, is starting construction of a fleet of ten 18-foot over all sailing dories from a design by Sam Crocker. The class will be similar to but larger than the successful Radio Class of last season at the Pleasant Park Yacht Club. The type was formerly known as the Club Dory and the new class is expected to be even smarter than the Radio boats. Bill Reid of Winthrop is building, for his own use, a 30-foot cutter from Crocker designs.

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The rise of the 30-Square-Metre tide continues, with John S. Lawrence, internationally known racing skipper and manager of the *Yankee's* 1930 America's Cup campaign, ordering a new Skerry Cruiser, from Reimers designs, to be built either in Scandinavia or Denmark. Last season Lawrence raced the *Falcon* in Class Q at Marblehead.

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The new 39-foot ketch for Ross Hardin of Hartford, from the board of Belknap and Paine, has had her planking completed at the West Lynn yard of the Britt Brothers.

The 50th anniversary program of the Pleon Yacht Club of Marblehead, oldest junior yachting organization of North America, will be on the top of the wave with the allocation of the Sears Cup final races for 1937. President Clifford Mallory of the North American Yacht Racing Union has set the date in 1937 as Monday, August 23rd. The final series for the junior championship is usually scheduled to begin the last Monday in August, which date permits elimination or selection races of the various areas being concluded during July or early August.

Great Lakes Breezes

By R. A. HAYNIE

AN UNUSUALLY fine spell of weather during October delayed the annual hibernation in the yards. Those who took advantage of it enjoyed some of the best sailing in years. But now the yachts are safely stowed ashore, and the winter activity commences. This does not partake of the "frostbite" complex, but consists of much sketch making, of changing of interiors and sail plans. Never has there been so much talk of changing ketches to cutters and schooners to yawls. Also, there is much talk of loose-footed mainsails; of new spars and rigging. All with an eye to the racing next year.

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A meeting of the Thirty-Square-Metre minded yachtsmen was held recently. The indications are that four boats of this class will be sailing in these waters next year. *Lill Singva,* newly acquired by the Robinson Brothers, and the forerunner of the class, arrived at Benton Harbor and has created considerable interest. She is beautifully built and, according to her record, is exceptionally fast.

In this stronghold of the heavy displacement Universal Rule yachts, there is considerable speculation as to the performance of the light square-metre boats on Lake Michigan, but according to their promoters these waters will prove very much to their liking. Regardless of comparison of the two types, it is encouraging to see developing here a new class that has already found favor in other sections of the country.

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"Bob" Benedict has purchased the 55-foot Alden-designed ketch, *Vamare,* and has already begun preparations for next year. She is practically a sister ship to James Lowe's *Ponjola,* which has always given a good account of herself in the racing, so if Bob's record with his former craft is a criterion, the new yacht will be a real competitor.

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Dr. Jay Lowell is building a 38-foot cutter from designs by Philip Rhodes. According to her owner, she is designed primarily for cruising but will sail in an occasional race. Where have we heard this before?

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Louis Emerman is having a 64-foot motor sailer built at the Great Lakes Boat Building Corporation.

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The Chris-Craft Corporation has just opened a salesroom at Michigan Avenue and Roosevelt Road, where a complete line of Chris-Craft will be on display. This is the second motor yacht company to have a salesroom in Chicago, the Matthews Company having had one for several years, and is another indication of the growing interest in yachting on the Great Lakes

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There will be a hearing by the Army Engineers on the proposal to establish a harbor at New Buffalo, Michigan. While the proposed harbor will have commercial possibilities, it will provide also, according to the plans, a fine yacht harbor in the old bed of Lake Pottawatomie. Situated only 45 miles from Chicago, in one of the finest sections of Michigan, it should prove a much-visited port.

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Rumor has it that the race next spring from St. Petersburg to Havana will have a Chicago-manned yacht in the fleet. Details are lacking, but a crew is now being organized under the leadership of Dick Jones, for many years Secretary of the Chicago Yacht Club, who is engaged in business in Florida.

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Perhaps we can also have a Chicago entry in the Bermuda Race next year. It has been many years since Chicago has been represented in this race, and it would be interesting to see if Lake Michigan could do as well as Russ Alger and his Detroit crew did with *Baccarat.*

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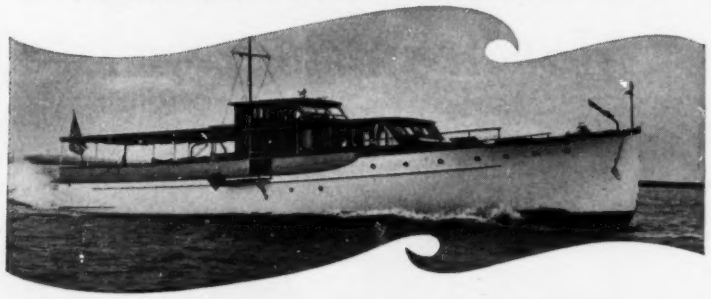

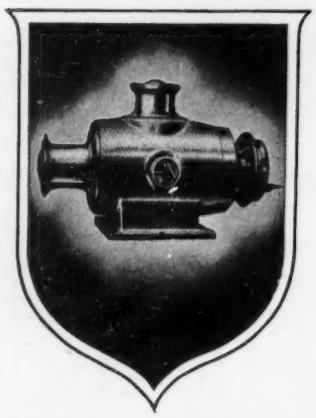

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Sound Waves

By LEE SCUPPERS

SOME forty dinghies in six different classes raced for daily prizes and two major trophies at the Essex Yacht Club's annual Armistice Day week-end regatta, November 9th–11th. When the day's points were tabulated, Dick Hill's *Mae West* had won in Class B and Bill Inslee's *Smoke* had taken the Essex Trophy for scoring the highest total in both the spring and fall regattas. Inslee's closest rival for the Essex Cup was Jack Sutphen's *Patty* until that boat capsized and consequently missed a couple of races.

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But alas and alack! Someone suddenly discovered that the Essex regatta had been sanctioned by the North American Dinghy Association and that theoretically no one was supposed to compete unless he was a member of that turbulent organization and had filled out a formal entry blank. So a re-check of the racing results was instituted. The non-members and those who had overlooked the entry provisions got the heave-ho and the points which Inslee and Hill had acquired by beating these ineligibles were disregarded.

As a result of this juggling, *Patty* took the Essex Trophy and Hill fell into second place astern of Frank Campbell, whose *Confusion* had been runner-up in the original standing. One skipper, who had just bought his boat, claimed that he did not pay dues to the N.A.D.A. because he had never heard of it. Another was thrown out because, although he filled out an entry blank, he forgot to sign it.

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Winter dinghy racing, inaugurated by the Frostbite Yacht Club four years ago as an informal and joyous, if somewhat "goofy" sport, has become so surrounded with rules and regulations that its originators no longer recognize their offspring. At the risk of being accused of blowing the home town horn, Lee will go on record as saying that the only dinghy racing center where the old Frostbite tradition prevails is Manhasset Bay. Over there you will find on any Sunday or holiday, dinghy sailors, male and female, ranging in age from twelve to sixty, having a tremendous amount of fun in a miscellaneous collection of craft that would not be given the time of day at other ports where dinghy racing is a very serious business.

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Dinghy dots: Gabriel Giannini has sold his Ratsey pram, *Fiammetta*, but the boat is still under Italian register. She has been bought by Vic Romagna for his two youngsters and renamed *Imbriacone*. Liberally translated from Il Duce's tongue that means "Souse." . . . *The New York Times*, with a delicate sense of the proprieties, always leaves off the first half of the name of Mrs. Helen Hill's dink, *Fanny Dunker*. . . . The Manhasset Bay Dinghy Association has put into effect a new rule for boats that hit marks of the course. Instead of suffering summary disqualification, the boats will be required to return and pass the buoy properly. There's an idea for the Y.R.A. . . . Bob Wessmann, Class A title winner last year, has been elected chairman of the Manhasset Bay Dinghy Association.

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Queen Mab, the first of the two *Vagrants* built by Herreshoff for Harold S. Vanderbilt, has been sold by Horace Binney, of Newport, to W. A. W. Stewart, vice commodore of the New York Yacht Club. So one of these days we may expect to see flying from the main truck of this famous two-sticker the flag of the commodore of the New York organization. When Junius S. Morgan feels like retiring, Stewart will become commodore under the rules of succession. *Queen Mab* was flagship of the Eastern Yacht Club when she was owned by Commodore Nathaniel Ayer. Her transfer also brings back into the racing picture a familiar figure, Harry L. Maxwell of Greenwich. He has taken title to Stewart's Twelve-Metre *Iris* and will race her either in the handicap class or against the newer "Twelves" next season. Which reminds us of a story.

Last summer Maxwell and a friend were watching the Long Island Sound fleet. The friend spotted *Mitena*, "Billy" Strawbridge's double-ended Twelve-Metre, and inquired: "What class does she race in, Division A handicap?" Maxwell, without batting an eye, replied: "You're just a year too soon."

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All of which probably will mean more nasty letters to the Skipper. Last month he had four complaints about the facetiousness of his writers and one terrific kick that YACHTING did not contain enough humor. What does a yachtsman identify as humor, anyhow?

The Star Class has called a special meeting to be held January 15th to consider radical revision of the rules governing the annual international championship series. The board of governors has written a rule calling for drastic punishment for team racing of the sort that cost Adrian Iselin his chance to beat Hook Beardslee for the title at Newport Harbor, Calif., last August. The board also proposes that hereafter the world championship cannot be conducted by the same fleet two years in a row, in the same district for more than two years, and on the same continent or in the same island district for more than three years. This will have the effect of moving the series around and giving some of the foreign countries, which fare so poorly in the internationals, an opportunity to run the show now and then.

+ + +

Another proposition Star Class members will vote on — and this is a direct slap at the Chamber of Commerce racers on the West Coast — is that the 1936 championship be held in North America on the waters of a fleet or district, which, if possible, has never held this event before. The governing committee will select the site and hastily adds, in its comment on this proposal, that "this action is no reflection on the ability of the Newport Harbor fleet to properly conduct the event in 1936, but is taken for the future welfare of the class as a whole and to properly inaugurate the new system."

Under the present rules, Newport Harbor has the right to run the races in 1936 because Beardslee, 1934 and 1935 champion, is a member of that fleet. He won this year because *Whitecap*, from San Diego, sailed Iselin's *Ace* all over the Pacific Ocean to allow Beardslee's *By-C* to make up a deficit of four boats on the last round of the course. *Whitecap's* skipper has been beached for two years by the Star Class executives by way of punishment, and lighter penalties were meted out to Dr. Martin, a West Coast skipper, and L. M. Pirie of Chicago, for joining in the fun after the damage had been done.

The Star Class rulers are anxious to do all in their power to prevent a repetition of this unsavory exhibition of sportsmanship.

Notes From Lake Ontario

THE swirling current of Niagara will scour the paint of the Lake Ontario fleet in the annual Lake Yacht Racing Association Regatta next year. The Youngstown Yacht Club, located three-quarters of a mile upstream, but below the falls, will be hosts for the event. The current is alleged to be but three miles in this present stage of low water but the fleets, used to cat-tail basins and sheltered anchorages such as exist in Rochester and Toronto, are expecting to caulk off at night to the cozy sound of eddies 'round the bow.

The racing will be over courses set in the open water of Lake Ontario, well off the mouth of the river. Youngstown, located on the eastern bank of the river, across the stream from historic Fort Niagara, is a new member of the ancient Lake Yacht Racing Association, the only international sailing body on the continent. It was awarded the meet after Rochester, N. Y., and Cobourg, Ontario, had bid for it.

+ + +

The Freeman Cup race, Lake Ontario's long distance classic, starts from Rochester, August 2nd, sails a northerly course across Lake Ontario to a buoy off Cobourg, then southwest, recrossing the lake to the Niagara River where the finish will be taken off the Youngstown dock. The *Maid of the Mist* has been chartered, according to report, to house the committee. The course measures 125 miles.

The racing will be on three consecutive days following the finish of the long distance event. The fourth day will be given over to trials in the Eight-Metre and "R" Class to determine the lake's nominees to defend the Barthell and Richardson Trophies. They are emblems of the Great Lakes championship in the two major fresh water racing classes. The Barthell Trophy for Eight-Metres will be raced for on Lake Ontario. The Richardson will be staged off Chicago.

+ + +

Major Walter Windeyer, as fiery and keen a tiller man as ever crossed a starting line for the Royal Canadian Yacht Club of Toronto, was named President of the Lake Yacht Racing Association in the annual meeting held October 19th at the Buffalo Canoe Club. The Major's choice as head man for the association has cheered the lake as no other political event in years. Theodore Booth, of the Buffalo Canoe Club, was named vice president. W. P. Farley, of the Rochester Yacht Club, and Thomas K. Wade, of the Royal Canadian Y. C., were named delegates to the Great Lakes Yacht Racing Union.

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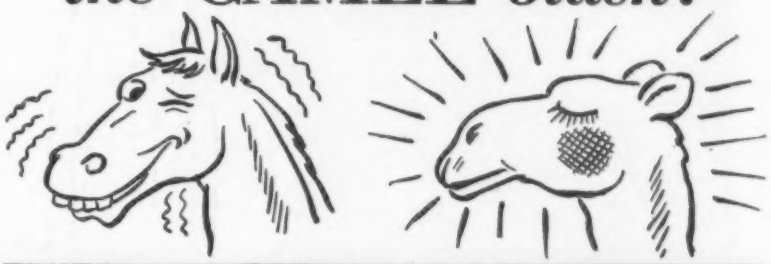
The season ahead is the first since the low water became serious that has not scheduled at least one major international cup event. Legal times for the

A 'HORSE' *that makes the* CAMEL *blush!*



● *"Emancipator IV"—225 cubic inch class Hydroplane built and designed by the Ventnor Boat Works, Atlantic City, N. J., for Mr. S. Mortimer Auerbach. This boat holds the world's record for the 225 cubic inch class having attained a speed of 63.7 M.P.H. in mile trials at Toronto, Canada. "Emancipator IV" also holds the world's record for speed in competition. Power is furnished by a Lycoming engine developing 155 H.P., driving through a Monel Metal shaft of ⅞" diameter.*

Arno Apel, down at Ventnor Boat Works, pours 155 H.P. through .601 square inch of Monel Metal Shaft!

By MORT CALKINS

MAYBE you know Arno Apel, secretary of Ventnor Boat Works. They're builders of the "Emancipator IV" which I'm showing you here. She's a fast one. September last at Toronto she set a new world's record: 63.7 M.P.H. in the mile trials. And she holds the competitive record, including turns, to the tune of 56.4 M.P.H.

Arno tells me her Lycoming spills 155 Horse-power through her ⅞" Monel Metal shaft. As I figure, that squeezes each "Horse" through less than .0039 sq. in. of Monel Metal. Now, 39/10,000 sq. in. isn't very big. It makes the camel's going through a needle's eye look like a cinch.

Arno says in so many words: "We find these Monel Metal shafts to be very satisfactory. You may rest assured we will continue to specify nothing but Monel Metal propeller shafting in our custom-built racing craft."

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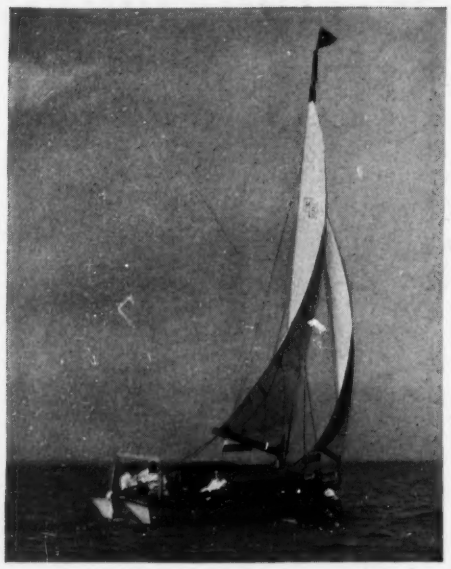

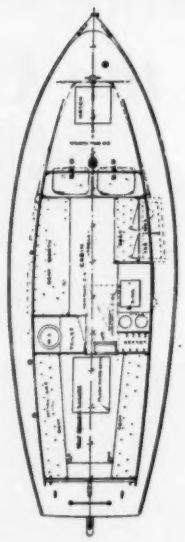

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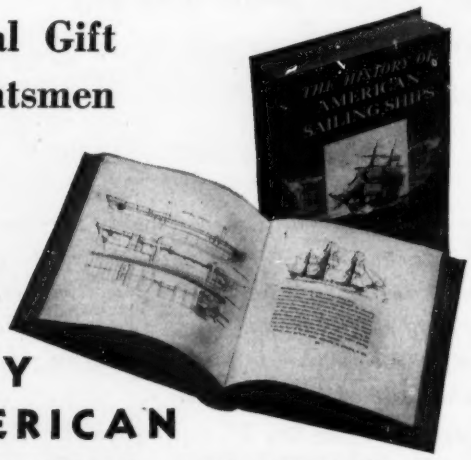

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challenges of the important trophies, gathering dust in Rochester's trophy cases, is over and past. The Canada's, the Fisher, the George Cup — Ontario's three important pieces of silverware — will slumber in peace, as will the treasurers and bondholders of the clubs that have challenged and defended so furiously in the past ten years.

+ + +

In the interim, the fast growing dinghy divisions of Rochester and Toronto will hold the spotlight. Rochester's new venture in the Uffa Fox 14-footers has proved most interesting. The youngsters tried their tillers in the fast Frostbite company off New London last month and went very well until they ran pop into a little demon Class B boat named *Fancy Pants*. She wish-boned them to death but they proved that the fresh water boats are very fast and keen and the racing against Toronto's Canadian 14-footers in a home and home series should give the newspapers plenty of copy. Small, able boats costing under a thousand dollars are catching on in earnest all over upper New York. It begins to look as if the fun is going to be hiking ropes instead of winches and Genoas these next few seasons.

C. A. R.

West Coast Bubbles

By WALDO DRAKE

CALIFORNIA'S tenth annual midwinter regatta will be sailed on San Pedro Bay, February 20th to 23rd, inclusive, as the midsection of an all-winter racing program. The schedule starts on December 1st with team races between Los Angeles and Newport Harbor Six-Metres. The eight "Sixes" will race for three successive week-ends on San Pedro Bay to determine selections for the planned East-West team races at Santa Barbara in early February.

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On December 27th, 28th and 29th, the "Sixes," "Eights" and the South Coast's fast growing dinghy fleet will hold a holiday series at Balboa-Newport Harbor. All of these events will be sailed over inside courses, made possible by the newly completed dredging program. The dinghies will race in the morning, the sloops in the afternoon. This Christmas program will launch the West Coast's new fleet of Potter-designed N.A.D.A. Class B dinghies, of which six have already been built. Some twenty "dinks" of the two Sun-Kissed classes will also be in action.

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Races at San Pedro and across channel to Catalina are planned for both cruising and racing classes in January. In February the new winter racing circuit will be inaugurated at Santa Barbara, moving southward to Santa Monica, San Pedro, Newport and San Diego on successive week-ends, provided sufficient entries materialize.

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Percy Yeend, San Francisco cruising yachtsman, departed from Honolulu in November on the second leg of an extensive South Seas cruise aboard his 36-foot cutter *Kia-Ora*. Also aboard is Mrs. Yeend, their son, Arthur, and Edwin Gurley.

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Burton C. Baldwin's ketch *Trade Wind*, with a season's merit of 192 points, won the season championship of the Forty-Five-Foot Sailing Association, as a result of her victory in the tenth and final race from San Pedro to Catalina and return on November 2nd–3rd. She was closely trailed throughout the season by C. E. Vesy's schooner *Tamalmar*, which collected 184 points, and Temple Ashbrook's sloop *Commander*, 179 points.

The final race of the "Forty-Fives" was also the traditional annual treasure hunt. The priceless chest was found this year by the crew of Dr. M. B. Ivie's sloop *Kummel* after a hair-raising dash to the cache with the crew of Al Rogers's Six-Metre *Synnove*.

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Six-Metre elimination races to select a United States entry for the 1936 Olympiad will be held on San Pedro Bay, probably in March. Clifford D. Mallory, yachting chairman on the American Olympic Committee, has so instructed William A. Bartholomae, Jr., president of the California Six-Metre Association, since three Los Angeles boats are the only announced candidates. These are Bartholomae's *Mystery*, Donald W. Douglas's *Gallant*, and Richard Schayer's *Naiad*, ex-*Akaba*.

Owen Churchill's *Angelita*, Eight-Metre Olympic champion of 1932, will probably go to Kiel as the American entry, no other candidate showing her sails.

Willitts J. Hole, of Los Angeles, whose 147-foot Diesel cruiser *Samona II* has in the last few years carried him on a score of fishing expeditions from the Bering Sea to the headwaters of the Amazon, is now cruising the Central American coast and the Galapagos Islands on a biological expedition aboard that vessel. With him are Albert E. Colburn, biologist, and Samuel K. Rindge, past commodore of the California Yacht Club.

Narragansett Bay Gossip

By SPINNAKER LIZ

THE Herreshoff plant at Bristol is busy drawing up plans for new sheds to be built in the southern yard, which will increase the under cover storage considerably.

Under construction now at Herreshoff's is a 30-foot water line fast cruising yawl from the design of John G. Alden for Charles A. Goodwin, of Hartford. Mr. Goodwin wished a boat that would be easily driven by a small sail plan, yet with full headroom, a forward stateroom sleeping two, main cabin with two comfortable berths, a toilet room, and galley. The beam is only eight feet on an over all length of 44½ feet and a draft of six feet, with outside lead ballast. With a very moderate rig, a fast boat should result. The yawl rig was used for ease in handling and the boat is designed as a single-hander, carrying only 746 square feet of sail. She will be launched and tried out early in the spring.

Considerable work is being done on R. H. I. Goddard's schooner *Ramallah* which is being refastened, and is having five new steel frames and floors added.

A Herreshoff Class S boat has been sold to Sheldon Whitehouse of Newport. This is the second "S" boat to go to Newport this autumn, and it looks as if there might be racing in the class there next summer.

The Herreshoffs have also designed a new motor-sailer, 45 feet over all with beam of 12 feet, and draft of 5 feet 8 inches, a centerboard boat with a medium duty Diesel. She will have a 1200-mile cruising radius.

Another new design is a 72-foot staysail ketch for a St. Louis yachtsman. The plans call for the new wishboom rig on both main and mizzen.

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At the head of Bristol harbor, Sam Wardwell has torn down his sheds at the old yard to the north and is building new ones in the south yard with railways extending the full length of the yard. Some of the boats hauled out for the winter here include Arthur Carr's *Janice C*, Peter Geddes' Star *Hoodlum*, William Eddy's *Onwego*, Alan Young's *Tuna*, Byron Waterman's *Redwing*, Arnold Hoffman's *Penguin* and about five Herreshoff "12½'s."

Dinghy racing started officially off this yard Sunday, October 27th, with some nine boats out. The following week was a little more popular, with fourteen sailing in three classes. Mrs. Stanton Smith's *Jade* is leading the series in Class B, Arnold Hoffman's *Happy Daze* is in the lead in Class A, and Dean Fox's *Ry-Hi* in Class D.

Jack Wood's *Flying Trapeze* has a new duraluminum wishboom, which seems to work out in great shape. "Jack" says the speed doesn't seem to be greater but the boat sails much better. Peter Geddes has a new fish pole rig on his Alden dinghy, changing her from Class A to Class X which was one of the big classes at the Essex regatta. Murray Keiler has sold his "A" dinghy and bought a new "D," which he expects to race in Florida.

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A new yacht club has been formed this year at Brown University, with about twenty members. This club is very active, and sponsors a lecture each month. The members hope to have intercollegiate dinghy races and have held two, one with M. I. T., defeating them 4 to 1, and one with Yale, which they also won.

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William Paine, sailmaker in Bristol, is making a new suit of sails for Reginald Lanier's *Istalena*.

Through D. N. Kelley and Sons' yard the 55-foot Hand-designed motor sailer *Pompano* has been sold to Mrs. Carter, of Gloucester. A few of the boats stored there are Albert W. Johnston's 80-foot motor sailer *Ungava*, William Hand, Jr.'s, new motor sailer *Buckaroo*, Lincoln Dow's ketch *Pole Star*, and G. B. Knowles' 66-foot motor sailer *Tamerlane*.

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Casey's yard still looks busy, with a new shed full to the brim, two new boats under construction, the new motor sailer designed by William H. Hand, Jr., and a 30-foot Marconi cutter, which will have a light Ford reduction gear motor.

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Peirce & Kilburn's new storage shed is finished and filled. They report the sale of Charles Tifft's *Oriana III* to Dion's Boat Yard of Boston.

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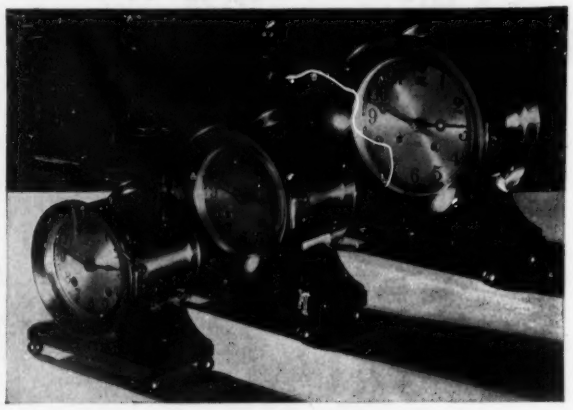

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Lake St. Louis Yachting Notes

THE Royal St. Lawrence Yacht Club's 1935 season came to an end in mid-September when four of the Class B racing sloops sailed an exciting race for the Stephens Cup. *Red Patch*, owned by John D. Ogilvie and sailed by Alec Shearwood, won by only 15 seconds from *Zohra*, with W. Taylor Bailey at the helm. *Venture*, G. S. Hanna, was third, and *Habitant*, G. V. Whitehead, was fourth in a race that saw the lead change hands several times.

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One of the most interesting events of the season took place over the Labor Day week-end when five dinghy crews from the Kingston (Ont.) Yacht Club met a like number from the Royal St. Lawrence Y. C., using boats of the latter club. Four races were sailed, the crews changing boats after each race. The competing skippers were: Kingston Y. C., Jemmett, Hora, Rigney, Crothers and Waddell; Royal St. Lawrence Y. C., Schwab, Maxwell, Rae, McGill and Campbell. A full sail breeze made the races fast and interesting and there was keen competition throughout.

John Schwab took the first race, with Maxwell second, and the home team thus jumped into a lead which they held throughout, the order at the finish being Schwab, Maxwell, Hora, Crothers, McGill, Rae, Jemmett, Campbell, Waddell and Rigney. The St. Lawrence crews piled up 33 points to Kingston's 22. Kingston took the second race by 28 points to 24. One boat was dropped from each team in this race while another dinghy was brought up the lake to take the place of one damaged by hitting a rock.

Schwab won his second victory in the third race, followed by Campbell, Rae, Hora, McGill, Jemmett, Maxwell, Crothers, Rigney and Waddell. In the fourth race Jemmett again took the honors with Maxwell in second place. This result gave the Royal St. Lawrence 33 points to 22 for Kingston, and the series by the score of 127 to 90.

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The 1935 season was a long and successful one for the dinghy class, which numbered about twelve boats. The victory of the Royal St. Lawrence Y. C. in the Currie Cup series, and again in the Labor Day races, has done much to encourage dinghy sailing.

Following is the list of winners for the 1935 season:

Lady Davidson Trophy. B Class. *Venture*, owned by Commodore N. C. Wight Syndicate and sailed by G. S. Hanna

Hamilton Cup. E Class. *Zoe*, owned by F. P. Shearwood and sailed by A. P. B. Shearwood

Converse Cup. Dinghy Class. *Fidget*, owned and sailed by I. O. Rae

Bluenose Trophy. Montreal High School (*Kingfisher*, J. C. Hunter)

Governor-General's Cup. E Class. *Brunette II*, owned by Walter M. Stewart, sailed by N. M. Stewart

Strathcona Cup. A Class. *Jellicoe*, Sea Scouts

Stephens Cup. B Class. *Red Patch*, owned by John D. Ogilvie and sailed by A. P. B. Shearwood

Duggan Cruising Cup. All classes. *Brunette II*

Windmill Point Shield. All classes. *Zoe*

Hugh Kennedy Memorial Trophy. All classes. *Venture*

Lake of Two Mountains Cup. All classes. *Zoe*

Commodore's Crew Prizes. E Class. Evening Series. G. C. B. Ross, W. D. Stephen, T. C. Darling, Jas. Ritchie

Vice-Commodore's Crew Prizes. Dinghy Class Thursday Series. J. B. Schwab, G. S. Hanna

Rear-Commodore's Crew Prizes. Dinghy Class Tuesday Series. J. B. Schwab, J. H. McGill, J. M. Campbell

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After a hard season of class racing, Commodore E. C. Janes' veteran racer *Gudrun* won the Class D championship, with 26 points, and major honors in her class. It is worthy of note that *Gudrun*, *Wawa* and *Paula*, all competitors in the season's racing, were the three boats that probably did most to put sailing on its feet in 1913–1914, when the present club's predecessor, the Pointe Claire Boating Club, began the movement to establish sailing at the club, a movement that has seen remarkable development, particularly in the last ten years.

Winners of club trophies were as follows:

D Class Cup. *Gudrun*, E. C. Janes

E Class Cup. *Fleurette*, Dr. G. H. Parke

P C Class Cup. *Grayling*, G. W. Miller

P.C.Y.C. Challenge Cup. *Zoe*, Owned by F. P. Shearwood and sailed by A. P. B. Shearwood

McMaster Cup. *Gudrun*

James Cup. *Fleurette*

Gudrun Cup. *Nanette*, R. C. Stevenson

Twilight Trophy (P C Class). *Winona*, R. W. Bastable

Ladies Race. *Chinook*, Mrs. J. A. Currie, skipper

"BEAVER"

Along the Detroit River

By WALTER X. BRENNAN

DETROIT windjammers are looking forward to a revival of Class R racing here next year since the purchase of Fred G. Wacker's *Gypsy* from Chicago by C. J. Lynch, of the Detroit Boat Club. *Gypsy* was designed by Frank C. Paine, built at Lawley's and leaves Chicago with a fine record. Her principal competition at Detroit will be from Russ Moore's *LaSalle*, designed by Burgess and Morgan, and Milt Cross' Mower-designed *Ardette*, and from a fleet of nine boats in the class at Cleveland.

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Commodore Gar Wood continues to deny reports of his building a new boat for the threatened Harmsworth invasion next year, and from time to time takes his *Miss America X* out for a test on the St. Clair River. He seems satisfied that the present boat still has enough latent miles to defend the B.I. trophy for another year.

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Morton S. Laupher took delivery on a 65-foot offshore cruiser designed for him by John L. Hacker and has headed south by way of the Mississippi. This is the first cruiser of any size to attempt the river passage from here in some time. The boat attracted considerable attention at Detroit. She is powered with two Kermaths through V-drives, located aft, leaving a lot of convenient space in the major part of the hull.

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R. A. Luedtke, of the Toledo Yacht Club, was elected to head the Inter-Lake Yachting Association at the annual meeting of the organization held November 9th at the Detroit Yacht Club. Commodore Gar Wood is the retiring head of the association which is made up of 25 clubs in Michigan, Ohio, Pennsylvania, New York and Ontario. Other officers elected are: Edgar T. Wolfe, Columbus, vice commodore; Wilbur Wright, Cleveland, rear commodore; Ed Flinterman, Detroit, sailing measurer; Harry Darst, Sandusky, power boat measurer, and Dr. E. B. Gillette, Toledo, fleet surgeon.

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Detroit and Toledo sailing fans read with interest the recent announcement that the Knights, who divide their time between the two cities, have ordered a 72-foot topmast schooner which they plan to enter in the next race to Bermuda. The fresh water sailors boast of their victory in the special "fisherman" class of the event in 1924, and in the Class B division in 1934 and they would be a happy lot if a group of fresh water sailors could win a Class A race. The Knights have not sailed the race before.

Bimesa III, the new boat, is designed by John Alden and is to be built by Lawley. The Knights formerly owned the 84-foot topmast schooner *Bimesa II*, which they sold early this year to Fred S. Ford.

From Raritan Bay

AT THE annual meeting of the Raritan Bay Yacht Racing Association, held in New York City, October 4th, the following officers were elected: President, George D. Emmons, Jr., Raritan Bay Yacht Club; vice president, E. E. Decker, Keyport Yacht Club; vice president in charge of motor boat division, Paul Gaylord, Richmond County Yacht Club; treasurer, A. A. Marsher, Princes Bay Yacht Club; secretary, Walter A. Tyler, Richmond County Yacht Club; measurer, Nelson Macan, Raritan Yacht Club.

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The past season has been a most successful one and activity on Raritan Bay has gone well beyond the goal set. At the beginning of the season a Star charter was granted to the Raritan Bay group and racing got under way with a fleet of five boats, which has now been increased to nine. The Association adopted the Comet as a one-design class and when the season opened twenty boats, divided among three fleets, were in the water. The national championship regatta for this class wound up what had been a fine season for the class.

On the occasion of the annual regatta and cruise 61 boats crossed the starting line, a gain of eleven over last year. The first ocean race was inaugurated by the Richmond County Yacht Club with eleven entries. Next year it is planned to make this a much more important event. There has been active racing in the handicap classes, and the Harpoon Class, Richmond County Yacht Club one-designs, put on the usual good show.

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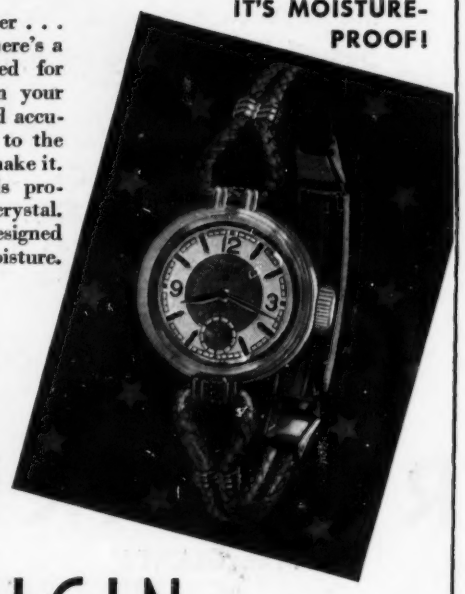

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Sea Terms Ashore

(*Continued from page 33*)

them with a candid and *aboveboard* statement of his difficulties and prospects, and they agreed to *sheer off* and *let it ride* for awhile. It was *sink-or-swim* with Landsman now, and he *cast about* for some means to keep his business from *going on the rocks*. He *tackled* this problem with a will, and *made a clean sweep* of unprofitable methods. His son left college and came into the office to *bear a hand*, and together they *shaped a course* to *stem the tide*. *Hanging on by the eyelids*, they *weathered the storm*, and *piloted* the concern into *quiet waters*. Bankruptcy was *headed off*, and Landsman was a happy man the day the bank gave him *a clean bill of health*, so that he was *square with* the world. He continued to *steer a safe course* and soon had the satisfaction of seeing the business *on even keel*, while the money came in *hand over fist*.

But what of the wicked partner? After he was *turned adrift*, he was *rudderless*, and *at loose ends*. He tried *off and on* to get a *berth* with firms where he fancied he *pulled a strong oar* but found that he did not *stand in with* them as well as he supposed. After *drifting* for a time, he *launched* a small business venture of his own, but never got *within hailing distance* of success. He did not *trim his sails* in accordance with his circumstances, and constantly *took the wrong tack* with his customers. After *making heavy weather of it* for a few months, his business went *on a lee shore* and he was *high and dry*. While his affairs were thus *at low ebb*, he began to drink heavily. Although his friends tried to *bring home* to him his shortcomings and get him to *brace up*, he failed to *steer clear* of temptation and remained a victim of liquor *to the bitter end*. Becoming a *derelict*, he was always *half seas over* or *three sheets in the wind;* and finally, when the *jig was up*, he *kicked the bucket* while *chock-a-block full* in a Bowery dive.

Glossary

Most of the sea terms used by the author are well known to yachtsmen. Therefore, in the following glossary, the definition of only some of the less used and less obvious terms are given.

Blow the gaff: Like many sea expressions, this was probably the "nub" of some humorous anecdote which has been forgotten. The gaff is the small spar at the top of a fore-and-aft sail.

Board, go by the: The Anglo Saxon "bord" meant the side of a ship. The word "board" had numerous uses at sea, usually connected either with the vessel's passage through the water, or with her sides. Her right and left sides were star-board (steer-board) and lar-board (lee-board); the portion which appeared above the water was "freeboard"; to go astern was to have sternboard or sternway. To board a ship was to come over her rail. "To go by the board," usually said of masts, was to be precipitated overboard and completely lost.

Booming along: Extra sails, called studdingsails, were run out on "booms" from the ends of the yards to give more sail area in fair weather. Under these conditions, the ship "boomed along."

Booze: From "bowse," which in the ancient mariner's vocabulary meant either to lift with block and tackle, or to drink convivially.

Bring home: To pull in all the slack that could be taken in on a rope; to hoist something as far as it would go.

Cast about: To try different courses when in doubt as to the ship's position.

Dead horse: The common sailor was advanced one month's pay at time of signing the articles. This usually went to his boarding-house keeper for alleged debts. During the first month out, he was said to be "working off the dead horse"; and at the end of this period it was the custom of the men in British ships to make an effigy of a horse and throw it overboard with suitable ceremonies.

Departure, take one's: The point from which the navigator starts his calculations for the voyage — usually the last land sighted.

Hanging on by the eyelids: The seaman's vivid description of his situation during a very heavy gale.

Larrup: Russell, in "Sailor's Language," identifies this word as coming from "lee-rope." The latter term has not been common in modern times.

Let her fly! An exclamation of admiration when the ship was traveling at a high rate of speed.

Make a clean sweep: From the havoc wrought by a huge sea breaking inboard and washing away all movable objects on deck.

Play fast and loose: Probably of nautical origin. Sails were said to be "made fast" or "loosed."

Press into service: A reminiscence of the press-gangs which caused the War of 1812 by stopping American merchantmen on the high seas and "pressing" members of their crews into service in the British navy.

Rakish: This adjective, when it indicates a saucy and swaggering air, comes not from the name applied to loose-livers, but from the appearance which it gave a ship to slant or "rake" her masts sharply toward the stern.

Shot in the locker, another: Refers to the anchor cable which was stored in the chain locker. A "shot" was 15 fathoms.

Right off the reel: The speed at which the ship was traveling was determined in the old days by throwing overboard a "log" attached to a marked line wound on a "reel." If the ship's velocity was great, the line ran out fast -- "right off the reel."

Till all's blue: Some authorities claim that this is an expression of nautical origin, meaning "till blue water is reached."

Togged out to the nines: The nines probably refers to guns called "long nines" carried on old ships-of-war.

Diesel Engine Progress for the Small Yacht

(*Continued from page 24*)

of pump and injector adjustments, the tinkerer is again discouraged and the ultimate reliability of our engine again improved.

The gain in appearance has kept pace with that in size, materials and general dependability. Miles of apparently aimless piping have vanished; some was useless, some has gone inside the casing, and some has been replaced by cored passages. Many leaky joints have disappeared. There are few appurtenances left to catch the unwary elbow or to be knocked off by the careless wrench. The Diesel no longer needs to be hidden away as an ungainly and dirty giant.

So much for the engines themselves. What progress has been made in the connecting links?

Small engines with electric starting equipment have greatly simplified and cheapened the installation problem. Enormously heavy engine beds, huge shafts, air bottles and compressors, together with constant personal attendance, are no longer required. Modern Diesels are smooth and fairly quiet, well governed at both high and low speeds, require a minimum of piping, and can be easily fitted for remote control. They can go under bridge deck, hatches or into any convenient place. Belts or other forms of return or offset drive are practical. Many engines are in 6-cylinder units and therefore suitable for twin installations. It is no longer necessary to increase the size or alter the construction of our vessel to make a satisfactory Diesel installation. Flexible, vibration dampening mountings have been devised to ease the effect of vibration, and the best installations absorb and confine the noise by the application of acoustic materials to the engine compartment.

We are learning, however, that all these desirable alloys so gaily mixed in jackets, liners, heads, etc., have increased our troubles with electrolysis and corrosion and now manufacturers are beginning to adopt closed systems of fresh water for cooling purposes. Moreover, we have suddenly found the closed system advantageous even where fresh water is available overside. We know that the problem is not in keeping a Diesel cool, but in keeping it hot enough for its maximum efficiency. If it were easy to do we would cool with steam. As it is, the aim is a temperature between 170° and 195° for our water, and a closed system with a thermostat gives the best control.

We have learned that brass piping is not always best and we now use tubing of high copper content, except for exhausts where cast iron, rubber or wrought iron rank in the order named.

We have learned that black iron makes the best fuel tank, and it is no longer necessary to carry huge tanks for fear the proper fuel cannot be obtained at the next port. There are so many engines in use that fuel can be had almost anywhere along the coast.

We have learned a good deal about fuel. One of the early arguments for the Diesel was that it would run on almost anything, and this is practically true (I have known Diesels to run on fried whale and seal). Range oil, kerosene and even gasoline can be used in an emergency, but these lack lubricating properties and should have lubricating oil added to them.

However, there are fuels and fuels and, aided by the research of such organizations as the Coöperative Fuel Research Corporation, we no longer ask for "28-30" (Baumé) or for "27 plus" but are beginning to look at the Cetane rating and ask for something between 55 and 70. (The usual fuel dumped into our tanks runs about 45, and kerosene and range oil from 75 to 80 Cetane.) This is a fairly wide range of fuels. All the major oil companies have fuels within this range and there is only the need of finding out their trade names. Having the fuel, we now know that each has its best operating temperature and we fuss with our cooling system until we get it.

From the same sources, we have learned that, contrary to gasoline engine practice, lubricating oils of asphalt base are perhaps the best for Diesels, that they should be light oils, and used at low pressures. This would indicate that oil coolers are as desirable as filters, and we find many of the recent models so equipped.

In short, the reliable small Diesel engine has "arrived" and is ready for any owner who wishes to avail himself of its possibilities, no matter what size or type of boat he may own. It requires but little effort to learn its habits and to take care of it. All he needs is a little more money for first cost than he would otherwise spend. There is no other valid objection to its installation.

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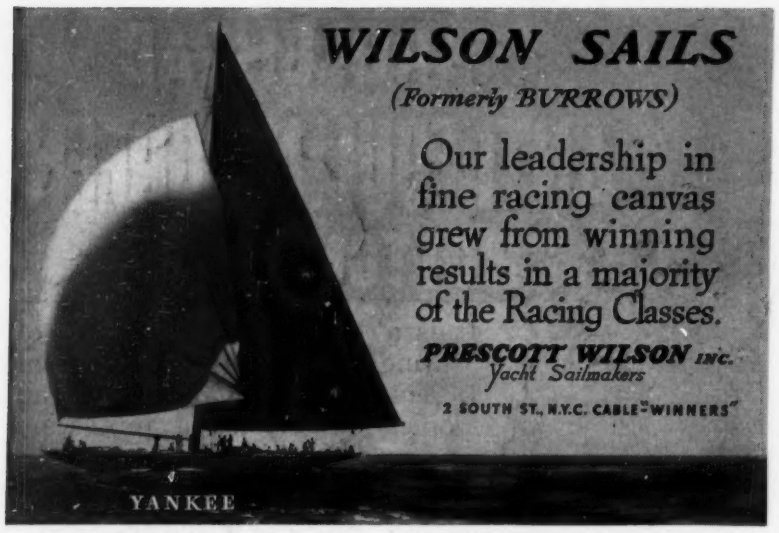
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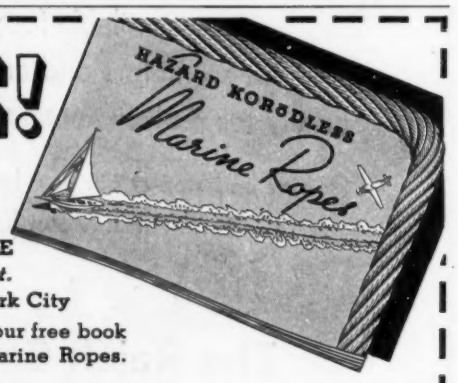

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Captain James Cook

(Continued from page 44)

orders for another voyage. He was to make a complete circumnavigation in high southern latitudes.

On this second voyage eastabout, he sailed in the *Resolution*, with the *Adventure*, a smaller collier, for company; his peril on the Australian coast had taught him the value of a consort. Nevertheless, when the two ships lost company and the *Adventure* went home, Cook was not diverted from his resolution to probe and probe into the Antarctic as far south as ever the icefields would allow the ship to go. Alone in the fog and snow — snow so thick that often they shook the *Resolution* up into the wind to get the snow out of her topsails. So they struggled on until, as he wrote, "even my spirit was broken."

Three years and eighteen days after her departure the *Resolution* returned with the loss of a single man due to sickness out of a crew of 118. That alone was an unheard-of accomplishment and the beginning of a new era in naval hygiene. The geographical results were mainly negative. Terra Australis Incognita, that land capable of supporting fifty million people, as it had been supposed, had been finally wiped off the map. It had been proved that whatever land there might be was close around the Pole and useless for colonization. The Southern Hemisphere ceased to be a land and sea of make believe, and outside the Antarctic Circle it remains today, in the main, as Cook charted it.

In 1775, when he returned, Cook was 47 and he would have been wise perhaps had he devoted the rest of his life to science ashore. But a call came in the following year and he went to sea again in the *Resolution*, this time with the *Discovery* as consort. His orders were to attempt the discovery, from the Pacific side, of navigable ways north, about Asia and America — both age-old problems. The two ships proceeded by way of the Cape of Good Hope to the old haunts, the Southern Pacific Islands. Then, at the latter end of 1777, they stood away north to discover, on Christmas Eve, the island which bears that happy name. Then, steering north, on the 18th of January, 1778, the lookouts descried snow-capped mountainous land as a cloud dead ahead. That was the white man's first view, after an interval of two hundred years, of what we now know as the Hawaiian Islands. He realized the outstanding importance to Pacific navigation of the group but stayed only a short time, knowing that he must strike at the Arctic at the right season. The American coast was made at Vancouver Island. Though he failed to separate the isle from the main, it may be claimed that he opened the western gate of Canada; as we have seen, he had already lent a hand in the opening of the eastern gate. Bad weather persisting, he was driven much off the land to come in again and again, searching for an opening, laying down on the chart all he saw. On through Bering Strait to the ice, far enough north to be convinced and to record that there was no useful way north about America. Then came the return to Hawaii for the winter season and here it was, as all the world knows, that the great navigator came to Journey's End.

Clerke, who succeeded to the command, was then a dying man but, with a magnificent spirit, he returned to the North. He carried on long after the people knew there could be no navigable channel, probably long after he, too, realized there was no way, but, lest his weakness might seem to influence a decision to turn, this fine fellow persisted. At last, to the great relief of all, he ordered the ships about, and died a few weeks afterwards off the Kamchatka coast. Years before, he had joined the old *Endeavour* as an able seaman, to return home in her as an acting lieutenant; he had served again in the second voyage. A right worthy follower was Captain Charles Clerke.

Such is a brief record of the achievement of Captain James Cook. Previous navigators had gone around the world, more as children seeking adventure — often, it must be said, as greedy children robbing orchards on the way. Cook had no time for orchard robbing, and adventure was just an incidental nuisance; in his journal he testily remarks that people often write "as if the whole merit of the voyage consisted in the dangers and hardships they underwent." It was a grown man who sailed in the *Endeavour*, out for knowledge, out for the giving of fair measure, out to make the paths straight for all seamen, all ships.

That the man himself had failings, that contacts with some temperaments sometimes brought his temper to hurricane force, and that at its full his natural upstanding sense of justice momentarily bent before it, we can accept, without believing for one moment that he was generally unjust, savage and unbearable. The presence in the last voyage of Charles Clerke and of that other old *Endeavour*, Captain John Gore, to whom was to fall the honor of bringing the ships home, is sufficient answer to such a charge. Old Admiral Isaac Smith told one story to the end of his days. When, at the first landing, the keel of the *Endeavour's* boat grated on the beach of New South Wales and all stood waiting for the famous navi-

gator to step ceremoniously ashore, he turned to young Smith, then a midshipman, with a cheery "Jump out, Isaac."

Certain it is that Cook does not figure here as one of the heroes of antiquity, nor as a man sent out primarily to conquer new lands, but none ever supposed that such was the intent until a few years ago when we were asked to accept that in the first voyage science was but a cloak to hide an expedition of British acquisitiveness. Significance was attached to the fact that the *Endeavour's* secret orders remained unpublished until recent times and that among them was an order to take possession of any new lands discovered.

As there is an identical paragraph in the *Resolution's* orders for the third voyage, at which time the King of France, who warred with England, gave order to his Navy to let Cook go his way in peace, and Franklin asked Congress that a like courtesy might be extended by America, it would follow that these two countries were being fooled; it would follow that an act of chivalry so rare in history was being flung away on a nation unworthy. As to there being any significance in the non-publication of the *Endeavour's* orders, we know that those of the *Resolution*, with a similar paragraph, were broadcast before peace was declared. We may infer by their actions that Byron, Wallis and Carteret each sailed under a like instruction and that the same applies to the explorers of the day of whatever nationality. In fact, it has been common to all orders given before or since.

As to the incredulity with which we are asked to treat the genuineness of the British Admiralty's interest in science, what possessed them, if the prime objects of the voyage were military and real estate, to take a man of non-military rank, a known hydrographer, and place him in command, cluttering up his ship with botanists, naturalists, astronomers and, of all people, artists! What were they all doing in a war galley?

And when Cook came home after these long years and admitted he had spent most of the time laboriously sounding and charting, even his claim that he had planted flags in New Zealand and New South Wales would not have saved him from the censure of his sword-clanking acquisitive masters. But he was not court martialled. Instead, they promoted him and sent him out to do the same thing over again.

Beyond question, in the mind and heart of James Cook scientific work ever stood first.

He had been south looking for Terra Australis Incognita, to find, instead, a waste of waters possessed by boisterous seas which swung unchecked right around the world. There he may have minded a line of Shakespeare's: "What care these roarers for the name of King." He had been star gazing, too, in Tahiti, gaining thereby a glimmering of the extent of the universe, a sense of the larger proportions in time and space — it was not likely that in his mind empire would be confused with eternity. Such men can never be held within narrow political boundaries; they are out to serve mankind. There is hope for a world wherein such men are honored.

Tacking to Leeward

(*Continued from page 48*)

winds, satisfactory speeds are attained and the possibility of driving faster by quartering is decreased.

As a simple illustration in the use of this graph, let us consider a hypothetical situation in which we are running before a light breeze in a schooner of the cruising type. There is a lumpy left-over sea. The spinnaker is drawing fitfully and the balloon staysail hangs empty between the masts. We note that we are logging 4 knots, and swing up about 25° closer to the wind. We let the pole go forward a bit and feel the balloon staysail fill — the boat seems to pick up. After she has gathered her new way, we again read the speedometer — 4.8 knots. Then we refer to our graph — 4 knots on the vertical axis, then over to the 25° radius; this intersects the 4.4 knot arc. We must sail 4.4 knots to stay even and we are making 4.8. This shows a profit by the maneuver of .4 knots. We may try slight variations from this course to find the optimum point.

It should be borne in mind that when this maneuver is adopted there is always possibility of loss due to shifting of the wind. In other words, let us suppose that after we have gone off on one tack the wind hauls and follows us around so that when we come to take our second tack to the other side of the base course the wind is again dead aft. This is one of the chances which must be taken. A steady breeze favors the maneuver.

The whole usefulness of tacking to leeward is contingent upon a number of factors which must be evaluated. The use of this graph and the speedometer merely help to iron out a few of these difficulties. However, if gain can be shown, other things being equal, it is easily justified in the eyes of the racing man.

It has been my observation that in sailing to *windward* on small racing boats, there is little doubt as

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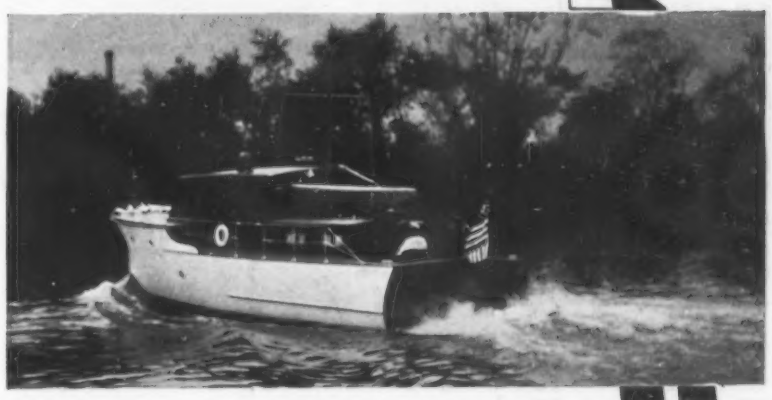

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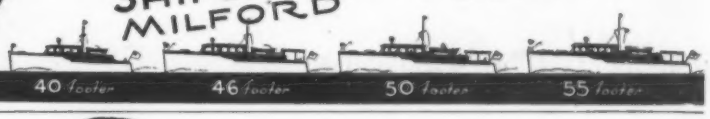

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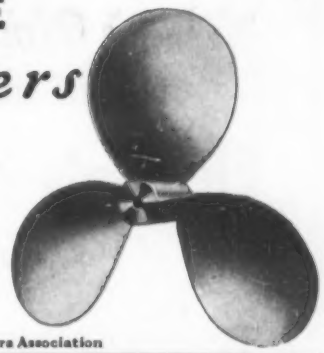

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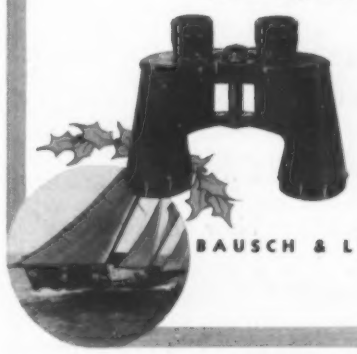

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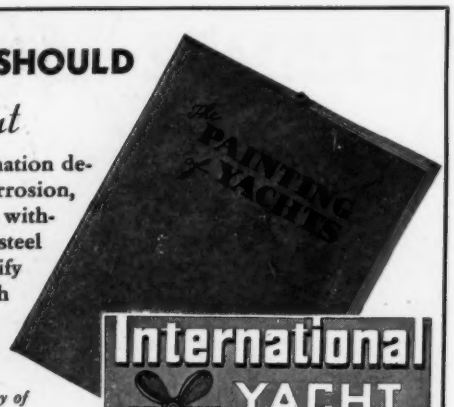

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to the best point to hold. These boats are sensitive and may be felt when they are sailing as fast and high as is profitable. But on the heavier cruising hulls, particularly in light weather, how close to the wind one should sail is much more of a question. Variations in course up to one point are easily conceivable. Here, again, the graph of tacking equivalents may be used to advantage.

It is only by the use of such a graph of tacking equivalents in conjunction with the marine speedometer that one may determine whether tacking to leeward pays and what course is the best. In sailing to windward one may also determine how close the boat may be sailed to best advantage. Watch the compass and speedometer, use the graph of equivalents, and you have some concrete evidence!

Note: Copies of the diagram, size 8½ inches, may be obtained from YACHTING for 35 cents each.

"Director's" Doldrum Passage

(*Continued from page 39*)

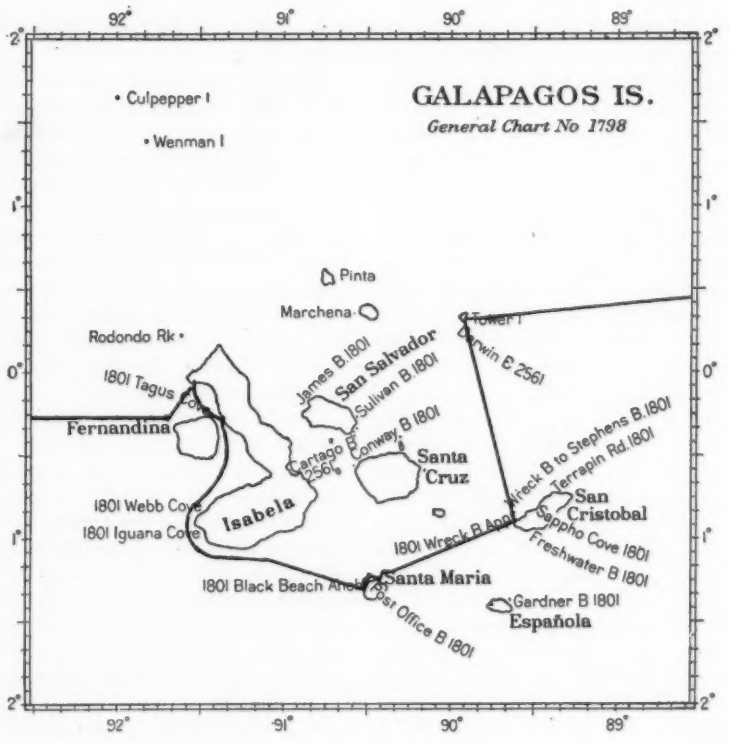
Island, dropped our anchor where there was no bottom, weighed it, moved, and dropped it again on a shelf in six fathoms.

We had done it! As a matter of fact, it is a small boat record. That flock of warnings and bad omens must be mounting up to be used later. Nevertheless, we took a week for surveying and collecting insects, reptiles (of which we found none), birds (of which there are too many for the good of the deck, fittings, etc.), and fish (which we were tempted to eat so often that Sheridan had a tough time making any preserved specimens).

It took us a disgraceful two days to sail the hundred miles to Wreck Bay on St. Cristobal Island. We all mounted the fast little mountain horses offered by the *Gobernador* and drank anisette at Progresso. Our arrival at Wreck Bay caused no great demonstrations on the part of the natives. In fact, the official in charge of the Custom House, a tiny thatch two-by-two house with an Ecuadorean flag large enough for a Greta Garbo for *Endeavour*, rolled over again to sleep after he saw that our anchor was down.

The skipper was worried because his papers read "Panama-Tahiti," with no mention of the Galapagos. We sat around cooling our heels most of the day, at times regarding the much changed *Svaap* (recently towed to Guayaquil) and agreeing that what was left, with the exception of the stainless steel rigging, would make a fine bonfire. A bit of handkerchief from the shore being waved violently indicated that the moment had arrived. The dory brought the *Teniente* aboard. Louis Salvatore, we learned, was his name, and he was rigged out in full Ecuadorean uniform. His first question, through habit, was: "May I see the papers?" Hey Hey translated. But evasion won the day and eventually the Ecuadorean Ambassador promised five horses on the morrow. He took himself off to the beach and we saw his powder blue coattails flying as he rode madly for Progresso in the hills.

We repaired the barrel at Post Office Bay on Santa Maria Island,



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filled it with mail and mapped the island. At Tagus Cove, the signboard of the Pacific, we added *Director's* name to the veritable Lloyd's list that has sprung up there. We counted over fifty recent arrivals — that is, arrivals within the last few years.

The ship now had her square yard and, with two inverted foresails, we made good time in the trials we gave it. But now the South Seas lured us on — we wanted to get on to Papeete, to see for ourselves its beauty and to sense the glamor about which we had heard so much. So we headed *Director* for the fabulous islands.

Success After Six Summers

(*Continued from page 35*)

off Bimini, I considered myself lucky. Much to my disgust, he refused it eleven times. My hopes now turned to the summer of 1934. Gifford did not come back to Montauk that year and I was fishing with Howard Lance. Lance worked like a trojan but the June fishing was spoiled by bad weather and in the first three weeks of July we saw only three and got baits to two. It was a terrible year for fish, and I still was busy with my office. One day when I had to be in New York I told Lance to take a friend, George Eustis, out with him. At 11:30 they saw two fish and presented a bait to one of them. It immediately struck and a 242-pound fish was brought to gaff in one hour and a half. Again, the joke was on me.

All during the following winter I pleaded with Captain Harry Conklin to get a new boat. Finally, as he no longer wanted to continue commercial fishing, he purchased a new 34-foot cruiser, built expressly for big game fishing. She boasts two or three features that I never saw on any other fishing boat, and with Harry to handle her she has few, if any, superiors. We launched her in April at the Palmer Boat Yard, in East Hampton.

Returning from Bimini the middle of June, I was still smarting from the loss of a blue marlin estimated to weigh close to one thousand pounds which, unluckily, had thrown the hook. But I had caught three giant tuna and a very rare Allison tuna, so I felt that I had had more than my share of good fortune for one month. We were both anxious to get started off Montauk, however, and when the fish "got in" we were thirty miles offshore on the morning of the 26th of June to meet them. The season opened auspiciously at 10:30 when I put a bait to a fish seven times, both squid and a fine fresh mackerel, and ended up by throwing the latter at him. I had actually put that squid right across his sword without getting a tumble, and as Harry was eager to harpoon the first one from his new boat, I told him to go to it. Incidentally, that fish breached twice clear of the water with the dart in him not more than fifty feet from the boat. He was the only harpooned fish I have ever seen that put up a good fight.

The following Sunday, June 30th, was cold, foggy and looked like a poor day for fishing. However, poor days were nothing new, and there was always the chance that conditions offshore might be better. In fact, fog does not bother one very much when swordfishing. The chance was as good of running right down on a fish within one hundred feet of a boat as of seeing one a quarter of a mile away. We left the dock at 7:30. I had invited several friends to come along, so, including my wife, I had ten pairs of eyes to keep lookout. The only broadbill we saw all morning got up and flew away — as we say when one mistakes a sea bird for the dorsal fin of a swordfish. After lunch I went to sleep. At 3:30 I was awakened by shouting. A swordfish had been seen. The excitement in the gallery was intense.

All my Vom Hofe rods were in New York but I had a 10-0 Vom Hofe reel on a 16-0 oz. Hardy with mackerel bait on a 24-thread line, and a 12-0 full of 36-thread to be used first with the squid on a 20-oz. tip, also made by these famous English rodmakers. The sun was steaming through the fog; it had turned into a fine day after all. I put the bait over, attached to the starboard outrigger. Harry then put a squid right up to the broadbill, in his usual faultless style. Nobody gets a bait to a fish better than he does, and the swordfish immediately changed his course and started to edge towards us. At this point I uttered a silent prayer that he might strike. It must have been heard, for he came up behind, started following, and then gave it a lusty wallop. As I yelled to Harry to speed up the boat, he gave the squid a second crack and then a third, which knocked the line out of the clothespin on the outrigger end into the water.

Immediately, I put the reel in free spool, having promised that if I ever did have another strike I was going to give him at least 200 feet of line, so that he would either swallow the bait or be foul hooked, I did not care which. I cleared two backlashes, with my audience screaming like mad. The line was running off at a terrific pace. I knew the fish had the bait in his mouth and I was taking a chance in not throwing on the drag. If he had felt the hook, or the leader wire had bothered him, no doubt he would have dropped the bait. After at least 200 feet were

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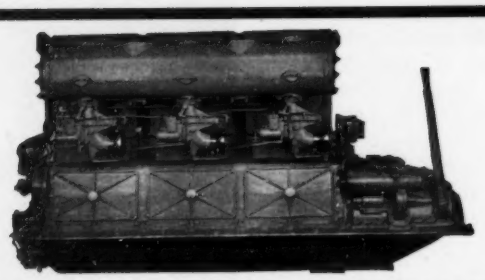

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off the reel I threw on the drag, the line came up tight with a bang and I struck him four times, good and hard, but unlike the wallop we give a big marlin or tuna. Broadbill have the softest mouths of any fish that swims and must be fought accordingly. Too much pressure on the hook, or too much drag on the line, often causes it to tear out.

This fish finned on the surface for a few minutes and after a run of some 400 feet put up a good, hard scrap for the next half hour. Imagine my feelings! After forty minutes Harry had the leader, but the fish was still very green, so he did not gaff him. Twenty-five minutes later, just 65 minutes from the time he had been hooked, the strap was around his tail and he was hauled on board. Needless to say, I got a great kick out of it. No fish I had ever hooked had I fought as carefully — practically no drag was used and I put the pressure on by thumbing the line as if I were using 3/6 tackle. A great many people, including my wife, had taken pleasure in informing me that I couldn't catch a fish without Tommy Gifford to guide me, so this catch made me feel better, one reason being that I had caught him for Harry Conklin.

Francis Low and his captain, Fred Wicht, passed us on the way in with a swordfish flag flying, and it was good to know that their big day had also arrived after five long years of waiting. Low's fish, weighing 282 pounds, and mine, 181, looked pretty good, I can tell you, side by side on the dock that night. To take two broadbill on the same day, seemed to portend a remarkably fine season at Montauk and this prediction turned out to be accurate.

The next Thursday we went out again as Mrs. Farrington was very anxious to get a fish. To our great astonishment she had a strike though the fish did not pick up the bait, but I hooked another and had him on five minutes before the hook pulled out. How do I account for hooking two fish in successive trips after never having had one on for five whole seasons, you will probably ask. My answer will have to be that that is broadbill swordfishing, and is the reason why men go after these fish year after year.

Converting a 12-Foot Row Boat

(*Continued from page 45*)

board can also be kept down by a small rope from a screw eye in the top cleat through one on the side of the well.

The rudder is made of ¾″ oak with the edges below water beveled. The two pieces are assembled with dowels and brass bands. The bands are let in flush with the wood on both sides of the rudder and riveted together. The rudder extends 10″ below the water line and is high enough above the transom so that the tiller works freely.

The tiller is made of straight grained hardwood. It is attached to the rudder head with a 3/16″ brass pin riveted over washers on each end. This will permit the tiller to be raised or lowered. The forward edge of the rudder should be cut out as illustrated to provide a stop to keep the tiller from falling down too far. The rudder gudgeons are made from ¾″ by ⅛″ brass strips. They are bent, as shown, and tightly riveted in the proper position. Underneath the gudgeons, cut a notch in the rudder ¼″ high by ¼″ deep to make room for the brackets.

The brackets are made from 1″ by 1″ by ⅛″ brass angles, 1″ long. Each has a 7/16″ hole in the top for the rudder pin and four 3/16″ holes in the side to take 3/16″ round head brass stove bolts. The brackets should be bolted to the transom at the highest and lowest points, with washers and nuts on the inside. If the transom has a center knee, make the brackets 3″ long so that the bolts will clear the knee.

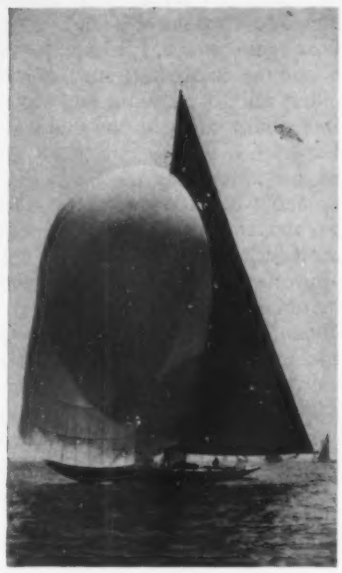
The mast is made of straight grained fir or pine, with no taper for 18″ from the bottom. At the top, fit a band and cut out for the forestay. Three feet down from the top, fit a grooved pulley, as shown. This pulley should be 2″ or more in diameter and thick enough to take a ¼″ diameter rope. It is of metal and it revolves on a ¼″ brass pin driven through the mast. Enough clearance should be allowed on the sides to prevent binding, and plenty of room at the top of the opening to keep the rope from chafing. The heel of the mast is cut square to fit the step.

The boom is shown with wooden jaws. When this is used instead of a gooseneck, a hold-down near the mast is needed to keep the sail in trim. Run a rope through a screw eye in the jaws and one in the thwart.

The gaff jaws are made from brass bars ½″ by ¼″, bolted to the gaff and bent to fit the mast. All sharp corners are filed off.

The sheet runs on a rope traveler fastened at each side of the boat above the after thwart. The traveler has two large knots about 14″ apart. One end of the traveler is permanently fastened; the other is cleated. A small ring, with a ⅜″ bullet block for the sheet, travels between the knots. The traveler is made detachable to get the tiller under it.

All hardware should be brass if the boat is used in salt water. In fresh water, galvanized hardware may be used, though brass hardware is recommended in this case also.



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Hints on Tuning Up

(*Continued from page 37*)

for the occasional hard-weather day when you get out to the line too early, and have to sail around to kill time, running the risk of splitting a batten and possibly tearing the sail before the race. What is even worse is the chance of doing the same thing during the race itself. All battens should be at least one inch shorter than the pocket so that they will have free play, for if too long they will eventually wear a hole in the end of the pocket, besides spoiling the shape of the sail and catching on runners or backstays. This eventually cuts the stitching where the pocket joins the sail.

The mast is the principal lever from which a sailing yacht is propelled, and the staying of it takes more time and effort than does any other adjustment. The position of the mast in a boat controls the center of effort and this, in turn, determines the balance; the only way, then, to change the balance without altering the sail plan is to move the mast forward or aft at the deck and step, or else to increase or lessen the rake.

The first move is to get the mast stayed as straight as possible by proper tension on all shrouds, and necessary adjustment of jib and headstays. Irrespective of whether the mast was originally nearly plumb or extremely raked, we shall assume that the problem is to get the center of effort in such a position as to have neither a hard, or weather helm, nor a soft or lee helm. The boat should have a slight weather helm, which is best described as an inclination of the yacht to come slowly into the wind when sailing close-hauled, in a smooth sea with the helm amidships. Assuming a fair amount of weather helm on a boat having considerable rake to her mast, first remove wedges at the deck so that the spar will follow the changed adjustment without bending; then take up on the fore triangle stays enough to move the masthead forward one foot, using a plumb line from the masthead to measure. Replace temporary wedges, allowing for change at the deck, and try her out. If she balances, leave her where she is; if not, increase or decrease the rake proportionately to the way she feels. If the mast is round at the deck, have extra long wedges made so that any thickness of wedge may be secured while tuning up. For masts square at the deck, I have found ordinary house shingles handy as a temporary shim before putting in permanent wedges to fit neatly. A boat with a pronounced lee helm requires the reverse of the above procedure, but, in any case, keep trying, and do not forget that the last two inches may be needed to just reach the point where she "*hangs up*" *right*. If change of rake in the mast is not sufficient to remedy the fault, or at least show some improvement, then the trouble must be radical and the whole mast will need to be shifted several inches by altering the step and the opening in the deck.

There are two schools of thought on tension of shrouds; some like them bar taut, so that they twang like a banjo; while others prefer a certain amount of play so that the mast will, as they say, "lay in the rigging." Too much tension puts severe compression stresses on the mast, not only weakening it and inviting a dismasting, but causing it to buckle, thus offsetting the desired effect of lying straight in the rigging, with consequent loss of driving power. An experienced man can feel when a vessel is "bound up" through too much compression stress and it is amazing how a yacht will liven up when things are eased off a bit.

Consideration must be given to size and strength of wire rigging in proportion to the load, and where the old-fashioned rig with wide spreader is used, the lower, intermediate, and topmast shrouds should be graduated as to size. Where the modern rig is concerned, with high fore triangle and genoa jib, there is a tremendous load much higher up the mast and, consequently, the upper shroud (which bears all the burden above the lower spreader) must have sufficient strength and rigidity to stand. There is always some stretch; it is more in an overloaded light wire than in a heavier one, and more in a long topmast shroud than in a short lower shroud. I had great difficulty, once, in making my mast stand on a boat which had an intermediate shroud of the same size as the topmast shroud. When the strain came on, the intermediate would stretch, allowing the mast to sag to leeward in the middle, like a bow. No amount of setting up on the turnbuckle at the mooring seemed to correct this. I am referring, now, to some of the early stainless steel wire, which, for the first year or two, was manufactured with a rope core, but which now is made with a wire core. It was a source of great annoyance as well as loss in speed until replaced with the proper sized wire. Then there was no trouble in getting the mast to stand perfectly straight.

In the normal rig with one wide spreader and three shrouds of wire properly graduated in diameter, it is the general practice to set up about the same tension, or maybe a shade less, on the intermediate, and proportionately less, again, on the topmast shroud. This should permit

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the mast to "lay" in a straight line when under load. In craft rigged with diamond shrouds and no topmast shroud, it is necessary to have pretty good tension on the upper, which carries most of the burden, and a slight amount of play in the lower, or lowers if there are two. This evens up the stresses when the load comes on and the upper shroud, being longer, stretches slightly so that the upper part of the mast falls in line with the more easily controlled position of the lower part. A narrow boat with short spreaders puts a much greater stress on rigging, consequently inducing more stretch. In all cases, the ultimate adjustment of shrouds must be determined while under way, observing the position of the mast when close-hauled in a good breeze.

A word, now, for the reader who may try all or part of these suggestions and who may or may not derive benefit in increased speed or improved performance. If nothing seems to happen, or if, in fact, the boat gets worse, please do not blame the writer but remember the oldest alibi of all and hand the responsibility along to the sailmaker. Experience tells me that you will, anyhow. However, the sailmaker is an artist in his own way, and few yachtsmen realize that he works to an eighth of an inch; nor do they appreciate that he is working with materials which are never fixed in dimension but fluctuate in size with the weather, or because of other factors. In designing a sail in which a fraction of an inch alters the shape as much as a foot, it is only fair to expect the ultimate user to have tack and clew in proper alignment and spars straight; otherwise, a curve or bend in the mast which throws it several inches out of line automatically ruins the effect of the sail. Some sails are better than other sails, but all sails are *good sails*.

Ocean Racing

(*Continued from page 30*)

Brown and his son Charles and Martin Lyons knew too well the dangers of Nantucket Shoals, they lost time in avoiding it, while the Englishman, guided only by the lead, went straight across the shoals and won by so doing. This makes less than no sense at all, as *Dauntless's* course from the Banks took her well south of Nantucket Shoals. It is, however, interesting in relation to a statement made by Captain Bully Samuels in 1901 and quoted in "The Lawson History of the America's Cup." Samuels said that "there was too much amateur talent aboard."

That the amateur talent, headed by the headstrong Bennett, may have matched cerebra with the professional brain trust is well within the bounds of possibility. But the onus of losing the race must rest with the man or men who, three hours after the start, made the decision to split tacks with *Cambria* and sail a southerly course. *Dauntless* dropped into a calm spot on the second day out and fell 100 miles behind *Cambria*. From the 8th, on which she made good more than 200 miles, she bucked easterly drift and westerly winds and never came within 50 of this mark until noon of the 20th. On that day, during which she crossed the tail of the Banks and entered the counter current north of the Stream, she again broke 200 and wiped out a good deal of her loss. But she was still nearly half a day behind *Cambria*, and the succeeding days, as the yachts converged on New York, were generally unkind to the American.

Dauntless sailed well, and shifted sails to meet changing conditions as quickly and as often as her competitor. It seems from a comparison of the logs that she got rather more wind than the English yacht. But it blew too frequently from the direction toward which *Dauntless* wanted to go, setting up that combination of head wind and head sea that is mighty hard to lick.

On the 23rd, 24th, and 25th, *Dauntless* was exactly a day behind the *Cambria*. On the morning of the 26th, when the American picked up her pilot, she was still nearly a day behind. But now her track crossed *Cambria's* and at last the yachts were once more in the same waters, once more subject to similar conditions. And now it was that *Dauntless* showed again her actual superiority — a superiority proved more than once in local racing before the season ended. At noon of the 25th, *Cambria* was 221 miles from the finish. That same noon *Dauntless* was 347 miles from the finish. *Dauntless* got a boost of luck, sailed well, and crossed the line 1 hour and 43 minutes behind the winner — and the next day it came out in the American papers (always alert to man the patriotic pulmotors) that *Cambria* got the lucky breaks and would have lost if it hadn't been for an eleventh-hour northerly off the Long Island shore. But by better headwork *Cambria* had tidily beaten a faster boat and well deserved that northerly.

When, a few days later, in racing for the America's Cup, she was pitted against the better boats and the still better headwork of the New York Yacht Club, she failed miserably to satisfy her owner's principal ambition. Home she sailed to England, the first disappointed challenger for the Cup, and the only one that ever warmed up by racing across the Atlantic before competing for it. (*To be Continued*)

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A Christmas Race

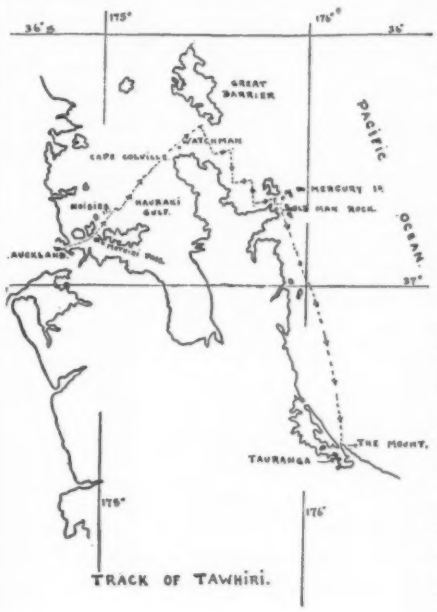
(*Continued from page 20*)

was unable to follow the sudden movements, and my mind seemed a thing detached. It was good to remember that Ted was on deck; he could sail a boat on a wind in the dark, and one could rely on him to get the last ounce out of it. Sleep was weighing heavily, and I was vaguely conscious of noise and turmoil, when, "Hey you had better come up and have a look at this!"

"Damn the weather!" Looking out through the companionway I could dimly see the two in the cockpit, with rain and spray driving across them in sheets. A smart squall was whistling over us, and *Tawhiri* was down to the coaming, driving hard. All around was turbulent, menacing night, the dark relieved by sudden flashes of phosphorescent foam. That jib topsail should be down, but we were loth to take it in. The wind would be sure to ease again, so we hung on and hoped that nothing would carry away. Then the sky began to lighten, the rain cleared, and a steady breeze sent us along at a much more seemly gait.

Soon the Watchman Light off Cape Colville was winking off our starboard bow, piercing the blackness with bright shafts, and in the seas rolling in from the wide Pacific our ship was becoming truly active. There was a big one lifting high against the weather sky. Up we went, up, up, and over; then came a long rushing downward glide, a check, a sudden uplift, and crash! "Hell! that was a corker," as a sea broke clean over the top of the dinghy, into the mainsail, and poured aft along the weather deck, coaming high. That staggered her a bit, but she was instantly up and at the next one, going fast. Soon another heavy one came aboard, and it was plain to see she couldn't stand too much of that. The weight had been trimmed too far forward for that sort of going, so both anchors and their chains were shifted aft. Then some of the stores were moved back, and for the rest of the trip she took nothing very solid on board. At that stage smoother water could have been found close in to Colville, but under that 3000-foot mound the wind would assuredly have been patchy, while strong and steady was what the doctor ordered. How she plunged and reared and fell slithering away into deep hollows, to gather herself for the steep ascent, be struck at viciously by the onrushing crest, and then go staggering down into the next black abyss with the water pouring from her deck. But she was sailing.

With the southern end of Great Barrier Island about two miles ahead, we swung around to the port tack, our next objective the passage inside the Mercury Islands, thirty miles to windward. It was not long before the first gray light of dawn diffused the eastern sky, and eyes were straining to find our rivals. *Nga Toa* was the first to show up, out to windward but not far away, and we were highly pleased at having held her so close. Then, as we closed in on the bleak eastern side of Colville, the white sails of *Ladye Wilma* and *Waione* showed up against the retreating gloom to leeward. We had time off both of them, and, under the prevailing conditions, the smaller boats could be counted out. As far as the race went, things looked rosy; but not so the dawn. All 'round the weather horizon rain squalls were banking up, and for every crest we conquered there were armies of gray seas rolling in, their white plumes unutterably cold. In the early light of an overcast day, the absence of the faintest tinge of warm color makes a stretch of wind-swept ocean one of the most drear sights that man can look on. Away to leeward the uneasy surface of the sea merged in deeper grays of rain and haze, and night retreated unwillingly before the advancing day. It was Christmas morning.



TRACK OF TAWHIRI.

Strong tides run 'round the Cape, and as we drew closer the sea became very broken and confused. Two white faces took it in turns at the lee coaming, while their owners paid tribute to the restless ocean. *Waione* decided that she had seen enough of the salt sea waves, and disappeared into Port Charles. A freshening wind was sorely pressing our ship, and we were being knocked about so badly that the jib topsail was reluctantly taken in. That made us much more comfortable, but when

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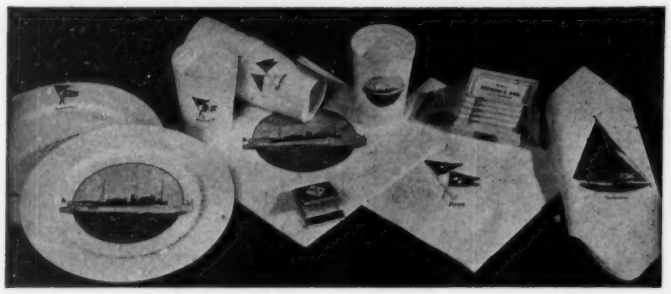

with these paper napkins, plates and cups made to order with the owner's flags in colors or a photo of his yacht. *Brennig's Own* cigarettes, book matches and playing cards can be similarly marked. ***Illustrated folder on request.***

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Yachtsman's Yearbook—1935

Edited by Alfred F. Loomis

LIKE its predecessor, this book has been planned primarily for reading and enjoyment. There is a wealth of data on technical developments and summaries of all the important races and all the annual yacht club regattas and cruises of the East and West coasts and the Gulf; first-hand accounts of blue-water voyages; the full stories of such events as the Transatlantic Race to Norway, the Usworth Rescue, the Nova Scotia Race, the Fastnet Race; also an account by Mr. Loomis of the *Yankee* in foreign waters.

It also includes 20 other tales of adventure, most of them told by the participants. In addition, you will find a generous selection of the best pictures of the year. Mr. Loomis has once again shown his excellent judgment in making these selections.

360 Pages

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Book Department—YACHTING

205 East 42nd Street New York, N. Y.

about two miles offshore backwash from the cliffs began to add its turmoil to the sea, we stood away on the starboard tack to get better water.

For a few hours we slogged it out under gray skies and frequent rain showers, but at ten the clouds broke up and there were patches of blue sky and sunshine. What a difference it made to have the sea a beautiful deep blue, with flashes of brilliant color and sparkling, snowy breakers. Then the Mercury Islands gave a degree of shelter for several miles, and it was quite pleasant going. *Nga Toa* disappeared through the passage, and *Ladye Wilma* was ploughing along in our wake. We three held the sea. Inside the islands a rain squall which shifted the wind about lost us some time, for we put in two boards over nearly the same ground. At noon the Old Man Rock was abeam, and on the port tack we could just lay the finishing line, sixty miles distant.

Rain squalls were gathering again to windward, and they soon came sweeping across the open sea, heralded by strong wind and foaming combers. Each that passed enabled us to haul a little to windward of the course, and it was not long before the sheets were started. What a glorious sense of relaxation it gave to be able to lay a course and drive her at it, after twenty hours of concentration on flag and luff and "feel." How we drove her, and how the little ship responded! There was the windward roll as a wave rose high behind the sail, and we fell away, away down into the hollow; then the mad rush as we raced along the steep face of an advancing sea, the side throw as a toppling crest hurled us bodily away, or the smother of spray as a broken top burst over the weather side. So she went, staggering and reeling on her way, with a cataract of foam pouring from her lee.

A race against time was on, for we hoped to sight the Mount before dark, and to get in through the entrance to Tauranga Harbour before the ebb started shortly after 10:00 p.m. With fifteen miles to go, a harder squall was whistling in the rigging, and it seemed a cruelty further to burden our faithful charge which had done so well. But there could be no thought of reefing then, so she bore up manfully under the press of sail, and struggled bravely on. There is something heroic about the actions of a powerful yacht, which, driven beyond her limits, forges on her way, protests dumbly, yet rises again to greater efforts, like a thing alive. Haze and misty rain obscured the land, and darkness was falling fast before we got a faint but certain sight of the Mount. Night closed down, but soon the flashing light on North Rock and the lights of the finishing line came into view, and with the wind eased off to a comfortable sailing breeze we felt a lot more cheerful. With such heavy swells rolling in the bar gave us food for thought, but as we closed in with the land islands to the east had their effect, and the passage was quite smooth. Surf was thundering on sandbars to the west.

We crossed the line at 9:10 p.m. The narrow entrance channel runs close around the base of Mount Maunganui, which rises steeply to a height of 800 feet. That hill effectively cut off the wind, but a strong flood tide was pushing us along, and our troubles were not quite over. It was intensely dark, and there was a noise of breaking seas all 'round. Swells crashed over rocks to port, while surf and tide overfalls roared to starboard. The light on Stony Point came rushing at us, we had no steerageway, but a squall filled the sail and drove us clear just in time. Next a channel buoy appeared right under the bow, and we swung about. We were then around into clear wind again, and had to beat up to an anchorage. Several short boards were worked entirely by guesswork, and then moored fishing boats charged at us from all sides. *Tawhiri* was going straight to windward with the tide as fast as she was going ahead, and the tiller was hard up and hard down in rapid succession, until we had not the slightest idea where we were. It was anxious going. Suddenly, loud yells from straight ahead scared seven devils out of us, and a bathing party on the beach materialized, seemingly right under our bow. With the tiller hard up, we swung 'round, and an active crew could have jumped from the deck on to dry sand. That definitely fixed the position of the shore, so putting our stern to it we ran out a hundred yards and anchored.

Finishing seventeen minutes later, *Ladye Wilma* did not have our luck, for she bounced over the end of Stony Point and then crashed into a channel buoy before she finally pulled up. *Nga Toa* had finished 1 hour 50 minutes earlier, but as we had 2 hours 45 minutes time allowance we came out an easy winner. *Revel*, the only other yacht to finish, arrived after a tough struggle at 8:45 a.m. the following morning.

As we rowed ashore and looked at *Tawhiri* lying at anchor so still and graceful, it was hard to realize that she was the same boat as the reeling, streaming fugitive of the day before. A stiff breeze was blowing still, and we walked across to the seaward beach. From there, with feet firmly planted on solid earth, we could admire the waves bursting to tumultuous ruin. We did not leave for the north that day, nor the next; in fact, it was not until the following Saturday that wind and sea had moderated sufficiently to allow us to leave with any degree of comfort; then, while soft morning mists still veiled the land, we stole out on the last of an ebb tide.

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YACHTING

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So You're Going To Sail Across!

(Continued from page 27)

certain portions of the Great Lakes. Dangerous seas must not be confused with dangerous winds. A sudden heavy squall may do a lot of damage, but the damage is from the wind, not from the waves.

Were it not for the fact that in the minds of most yachtsmen, "blue water" cruising means sailing to Bermuda, Africa, China, England, and other far flung lands, and, perhaps, to Nassau or Havana, while all other types of cruising are "just cruising," the requirements of a cruising yacht would be generally accepted, as they should be, to include the ability to go to sea. The fact seems to be forgotten that the open ocean is, actually, practically in our laps! That unless you sail in the open ocean you can't sail from Philadelphia to New York; from New York to Newport; from Newport to Boston; from Boston to Marblehead; from Marblehead to Portsmouth; or from Portsmouth to Bar Harbor. It is a strange fact that a man who wants to buy a boat to sail to Bermuda will ask for a different and more husky craft than if he wants to cruise from Boston around the Cape and down to the Chesapeake. Comparatively speaking, you will have about four days for the big bad waves to catch you on the run to Bermuda, with no danger from a lee shore, and about the same length of time, with considerable chance of a lee shore, on the other run. Pay your money and take your choice.

All have not, fortunately, forgotten this — notably, a number of yacht designers. If you go to almost any one of these and tell him you want to go cruising in a sail boat and you have so much money to spend (and it's enough), and then just go away and leave him alone until the boat is finished, the odds are high that you will wind up with a boat that you can sail to Bermuda or anywhere else.

Let us accept the fact that once you get out from the protection of the land you are in the ocean, beset by whatever dangers the ocean has to offer, and that the only difference between one spot and another, so far as danger is concerned, is that in one spot you can, perhaps, scurry to a nearby port, whereas in the other you have no choice but to depend on your vessel and your crew.

It is when the seas become steep and breaking that they become dangerous. The long ocean rollers will never hurt any small boat, immense as they may be. But when the storm waves climb high and ever higher, and get steep and ever steeper, and start to break with a great concave and a smother of foam, it is then that the test comes. It is a test of design and construction and rigging and seamanship. If your yacht is improperly designed or built or rigged, or if your seamanship is faulty, you may expect one of the following:

1. "Broaching to," followed by a knockdown onto your beam ends or further. If you have run too long, which is poor seamanship, this danger is apparent; it is an old maxim to heave to in plenty of time, and it is the skipper's responsibility to know the capabilities of his yacht and how long she can run before she should be hove to. If running dead before it, the danger of jibing is always present. For this the divided rig is preferable to the single rig, and the schooner possibly the best of all, for her foresail is a small sail to start with, is ideally placed to draw the yacht along without either pushing her or threatening to bury her by the bows, and all that is necessary to achieve this efficient set of sail is to drop the headsails and the mainsail.

2. "Burying," with the possible crashing in of hatches, deckhouse, etc. This may happen either at the crest of the wave, through "pooping," or at the bottom of the trough. Heave to in time, though trailing a drogue astern or using oil will help.

3. Dismasting. This may be involved in either of the foregoing situations if the masts or rigging are not strong enough. Again a matter of design and construction, and of upkeep.

4. Foundering may, of course, occur anywhere if a vessel is ready to fall apart anyhow. It is, however, usually only after such punishment as has been described above that a ship opens up and refuses to stay afloat. It does not often happen in the case of yachts, but the possibility is sufficient warning not to go cruising except in a well found ship.

\+ + +

Those are the preëminent hazards of the sea! To be prepared for them is to have gone a long way toward a happy, comfortable cruise.

It is not, as it may seem to some, actually "putting the cart before the horse" to discuss these matters of safety before considering the design or selection of the yacht herself. So important are these safeguards in the design and construction of the yacht that not to consider them first would be more truly to "put the cart before the horse" than to go about the job in any other way. To a degree, this is true of comfort and enjoyment. These, however, depend to a considerable extent on arrangements which can be made after the yacht is completed, so we shall take the bull by the horns and pick out our yacht, or design her, first.

(To be Continued)

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This has been a season packed full of marine racing records and achievements. And Champion Spark Plugs have played a vital part in setting these new marks. The winners of the vast majority of races held all over the country have been equipped with Champions.

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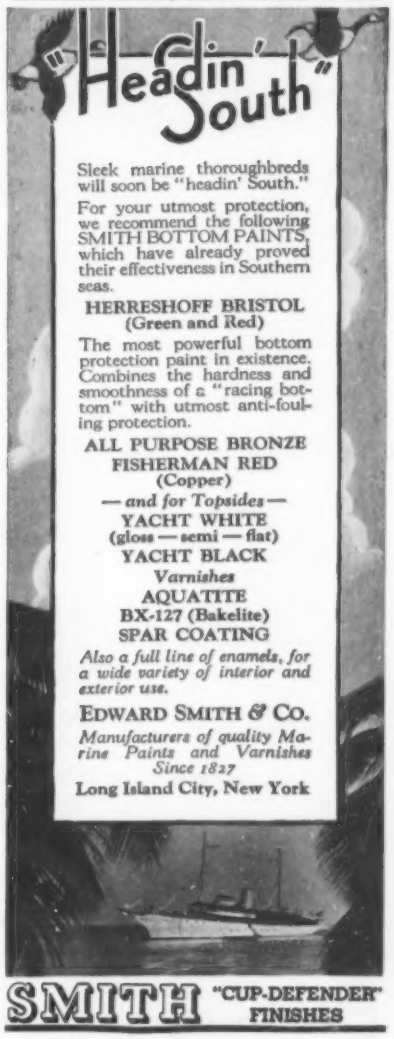
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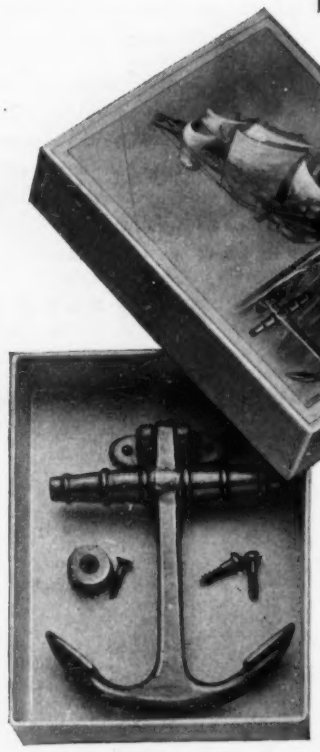

These novelties are packed in real seaweed in handsome metal-edged boxes

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No.	Height	Width	Thickness	Weight	Each
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1. Paper Weight	3¾ in.	2¾ in.	¾ in.	4 oz.	1.00
2. Paper Weight	5 in.	3¾ in.	1 in.	8 oz.	1.25
1. Door Knocker	3¼ in.	2¾ in.	¾ in.	5 oz.	1.50
2. Door Knocker	4½ in.	3¾ in.	1 in.	10 oz.	2.00
3. Door Knocker	5 in.	4¼ in.	1 1/8 in.	1 lb.	2.50
4. Door Knocker	6½ in.	6 in.	1½ in.	2¼ lb.	3.50
5. Door Knocker	8¾ in.	8 in.	1⅝ in.	4 5/8 lb.	7.50
6. Door Knocker	9¾ in.	8¼ in.	2 in.	6 lb.	10.00
Book Ends, per pair	6¼ in.	4½ in.	2 in.	3 lb.	5.00
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Illustrated catalogue and price list on request

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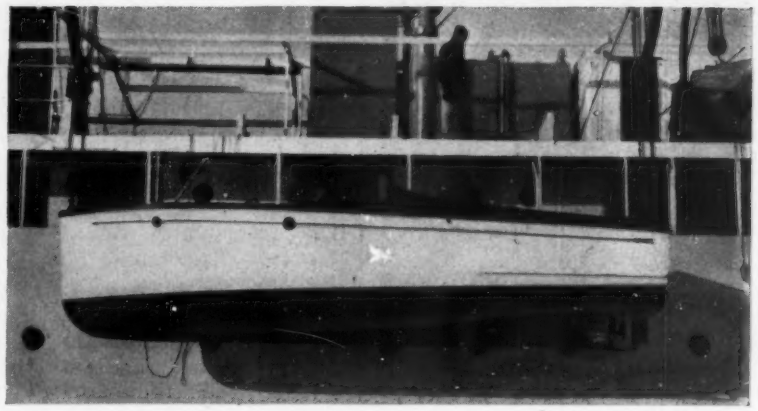
Of Interest to the Skipper



This Richardson 25-foot "Little Giant," Chrysler powered, is shown on the davits of the yacht "Stranger"

Twenty-Five Years of Progress

THE Silver Anniversary number of the *Bakelite Review*, just received, outlines the history of the Bakelite Corporation and its products since 1910. Strictly speaking, the story began with Dr. Baekeland's researches between 1905 and 1909.

The corporation was formed in 1910 and each year since then has seen it grow and has also seen new applications of its products in many of the world's most important industries. Its products are found afloat in a yacht's electrical system, in her engine, instrument panel and elsewhere. Bakelite is the base of several brands of spar and inside varnish and its uses are constantly increasing.

The *Review's* special number is an attractive publication.

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For Fire Protection

A NEW catalog has just been issued by Walter Kidde & Company, Inc., entitled *The Boat that Won't Burn*. It contains detailed description of the Lux system of fire extinguishing, with a suggested layout for installation and illustrations of many fittings. This system is automatic in operation and is controlled by a heat detector which turns on the carbon dioxide gas a few seconds after a fire starts. The system does not depend on any electrical gear and thus protects the boat even when she is at her mooring with nobody aboard.

The Lux extinguishing system may also be manually operated. The use of the Lux-O-Matic device results in lowered insurance premiums as it is listed and approved by the Underwriters' Laboratories. All Lux systems meet the requirements of the U. S. Department of Commerce for the protection of motor boats.

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An Understatement

IN THE advertisement of John G. Alden on page 73 of the November issue of YACHTING, it was stated: "The 11-year-old schooner *Elizabeth* won the Chicago-Mackinac Trophy (for the second time). . . ." Several yachtsmen have written to Mr. Alden pointing out that *Elizabeth* has won three Chicago-Mackinac races.

A 30-foot houseboat and 16-foot utility runabout, both by Chris-Craft

USL Starting Batteries

FOR Diesel engine starting USL Battery Corporation offers its type SRD battery, improved in design and construction. In this service the demand upon the battery is particularly severe as the current requirement ranges from about 300 to 1600 amperes, and the necessary voltage must be supplied, even under the low temperatures of winter. Any requirement may be met in the choice of sizes and number of cells. The type 3-SRD-21 and 4-SRD-21 are representative.

Extra long life is assured by an increase in bridge height, that is, in sediment space in the bottoms of the cell, to full two inches. No cleaning of the battery, therefore, is necessary throughout its service life. The posts carrying current from the positive and negative groups of plates are increased in cross section and each cell is connected to the next by double connecting links of lead coated laminated flexible copper. Terminal connections are in a special design of heavy lead strap with which is cast the external lead of extra flexible #0000 cable.

The two sizes mentioned, 3-SRD-21 and 4-SRD-21, are, respectively, three- and four-cell batteries. Plates are the standard SR type, full 5/32" positives, 1/8" intermediate and 3/32" outside negatives, 4 7/8" high by 5 11/16" wide. Separation is by first quality grooved Port Orford Cedar in combination with high perforation hard rubber veneer. The type SRD-21 size is rated at 160 ampere hours, at the 8-hour rate of discharge. This size is ample in capacity for most Diesel engine starting requirements. Other sizes are, of course, available.

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Columbian Offers New Bearings

A NEW type of bearing, known as the Columbian Frictionless Rubber Roller Bearing, is offered to the marine industry by the Columbian Bronze Corporation of Freeport, L. I. A number have been installed this year in pleasure and commercial boats and reports are most favorable.

The new bearings are installed with the rubber rolls under slight compression. They act somewhat as shock absorbers, reducing vibration materially. On account of the rolling action, neither shaft nor bearing housing

An assortment of Columbian Frictionless Rubber Roller Bearings

wears and any sand or grit that may enter the bearing soon works out with the water passing through. While water acts as a lubricant, the bearings may be run dry for considerable periods without any injurious effects.

Shafts and pins are of Monel and the cages of a special Columbian alloy which is non-corrosive and will not set up a destructive action between any of the parts. The bearings are used mainly in stern bearings and struts; they may be installed in stuffing boxes when proper provision is made.

A schedule of standard sizes and other interesting data may be obtained from the manufacturers.

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Charles King to Open Yacht Brokerage Office

CHARLES KING, well known in yachting circles and formerly a member of the firm of Tams & King, is opening a yacht brokerage office at 24 West 44th St., New York. Mr. King has had a long career in yachting, having raced on such outstanding speed boats as *Ankle Deep* and the *Dixie Juniors* many years ago. Later he turned to sail and raced in *Shawara, Typhoon* and other fast boats. He has owned three yachts and is in a position to offer sound advice to yachtsmen. He recently again became a member of the Yacht Brokers' and Naval Architects' Association, of which he was a founder and its second president.

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Illustrated is this standard 30-foot hull rigged as a *Yawl.* With her 5000 lbs. of outside ballast she is a good sea boat, yet her shoal draft makes easily accessible many ports impossible for boats drawing more water.

Write us for detailed specifications, plans, and alternate cabin layouts. If you prefer another rig to the *Yawl,* let us know your requirements and we shall be glad to show you how this standard 30' hull can be rigged to suit your taste.

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